

# The Secondary Fan of a Curve of Type (4,2)

The computational results listed below prove some of the results in the papers

*Eric Katz, Hannah Markwig, Thomas Markwig: The tropical  $j$ -invariant.*

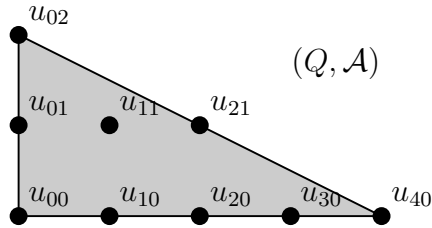
For an explanation of the terms used in the following, for some of the notation, like  $c_T(i, j)$  or  $\eta_T(i, j)$ , and for a thorough explanation of the results we refer to this paper and to

*Eric Katz, Hannah Markwig, Thomas Markwig: The  $j$ -invariant of a Plane Tropical Cubic. To appear in the Journal of Algebra.*

If we consider a curve given by the general polynomial

$$f = u_{40}x^4 + u_{30}x^3 + u_{21}x^2y + u_{20}x^2 + u_{11}xy + u_{02}y^2 + u_{10}x + u_{01}y + u_{00};$$

then the secondary fan associated to  $f$  is the by definition the secondary fan of the the following marked polytope  $(Q, \mathcal{A})$ :



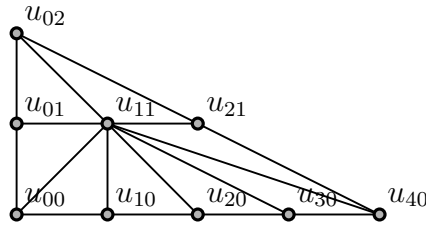
As coordinates on the 9-dimensional real space in which the secondary fan lives we use by abuse of notation

$$u_{11}, u_{40}, u_{30}, u_{20}, u_{10}, u_{00}, u_{21}, u_{01}, u_{02}$$

In what follows we give for each vertex in the secondary fan the corresponding marked subdivision and the inequalities describing the cone. Moreover, we compute the cycle length of a tropical curve dual to the subdivision in terms of the  $u_{ij}$ , and we determine the corresponding vertex in the Newton polytope of the regular  $A$ -determinant of  $f$  to which the cone belongs by computing the coefficients  $\eta_{ij}$ . From these we can compute the generic valuation of the  $j$ -invariant of  $f$  provided that the associated tropical curve has a cycle. In particular, we will see that in these cases the cycle length is just the negative of this generic valuation. Note that the regular  $A$ -determinant is the product of the discriminant of  $f$ , and  $u_{02}$ , and that the denominator of the  $j$ -invariant of  $f$  is the discriminant of  $f$  times  $u_{02}^2$ .

# 1. Vertex: $(8, 2, 2, 2, 2, 2, 2, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

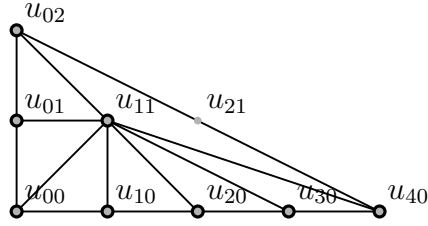
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{20} &< u_{30} + u_{10}
 \end{aligned}$$

## 2. Vertex: $(8, 3, 2, 2, 2, 2, 0, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

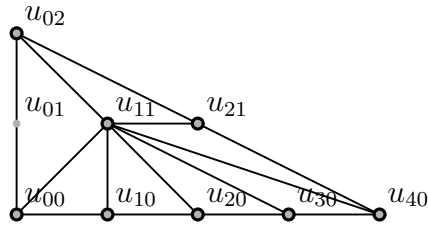
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{20} &< u_{30} + u_{10}
 \end{aligned}$$

### 3. Vertex: $(8, 2, 2, 2, 2, 3, 2, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

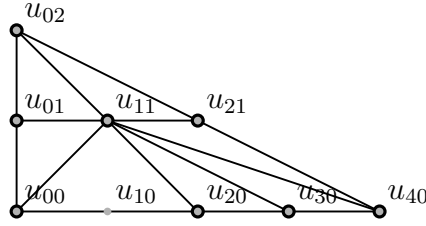
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 2 \cdot u_{20} &< u_{30} + u_{10}
 \end{aligned}$$

#### 4. Vertex: $(8, 2, 2, 3, 0, 3, 2, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

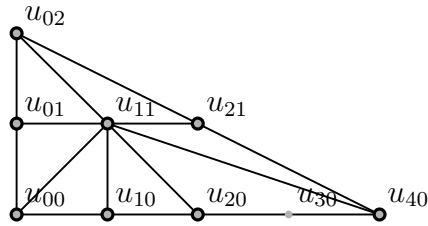
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{11} + u_{00} &< u_{20} + 2 \cdot u_{01}
 \end{aligned}$$

## 5. Vertex: $(8, 3, 0, 3, 2, 2, 2, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

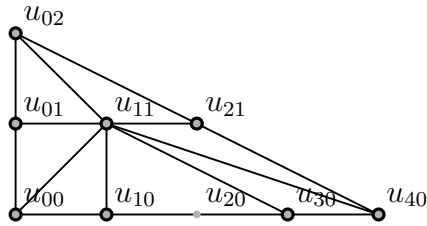
$2$	$2$					$2$	$1$				
$1$	$0$	$-4$	$0$			$1$	$0$	$8$	$0$		
$0$	$1$	$0$	$0$	$0$	$1$	$0$	$1$	$0$	$0$	$0$	$1$
$c_T(i, j)$	$0$	$1$	$2$	$3$	$4$	$\eta_T(i, j)$	$0$	$1$	$2$	$3$	$4$

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 2 \cdot u_{11} + u_{40} &< u_{20} + 2 \cdot u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10}
 \end{aligned}$$

## 6. Vertex: $(8, 2, 3, 0, 3, 2, 2, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2
1	0 -4 0
0	1 0 0 0 1
$c_T(i, j)$	0 1 2 3 4

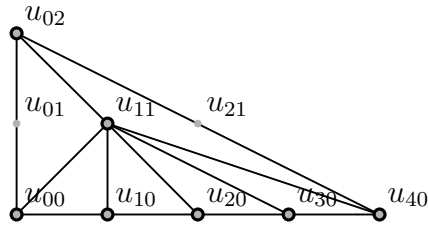
2	1
1	0 8 0
0	1 0 0 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 u_{11} + u_{00} &< u_{10} + u_{01}
 \end{aligned}$$

## 7. Vertex: $(8, 3, 2, 2, 2, 3, 0, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

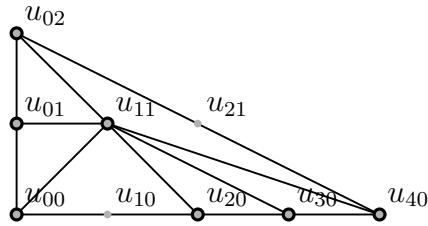
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{20} &< u_{30} + u_{10}
 \end{aligned}$$

## 8. Vertex: $(8, 3, 2, 3, 0, 3, 0, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

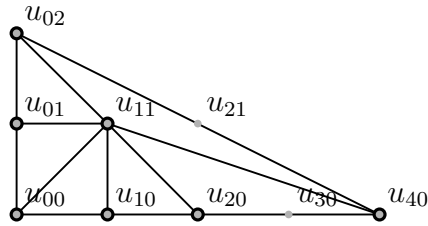
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{11} + u_{00} &< u_{20} + 2 \cdot u_{01} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02} \\
 2 \cdot u_{30} &< u_{40} + u_{20}
 \end{aligned}$$

## 9. Vertex: $(8, 4, 0, 3, 2, 2, 0, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2
1	0 -4 0
0	1 0 0 0 1
$c_T(i, j)$	0 1 2 3 4

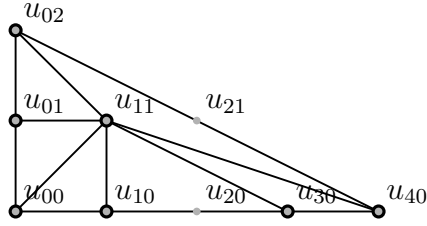
2	1
1	0 8 0
0	1 0 0 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 u_{11} + u_{00} &< u_{10} + u_{01}
 \end{aligned}$$

## 10. Vertex: $(8, 3, 3, 0, 3, 2, 0, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

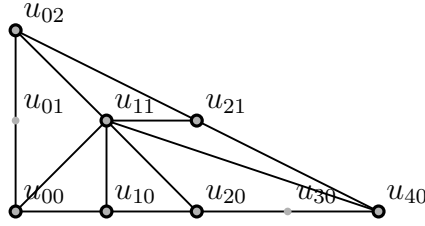
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02}
 \end{aligned}$$

# 11. Vertex: $(8, 3, 0, 3, 2, 3, 2, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2
1	0 -4 0
0	1 0 0 0 1
$c_T(i, j)$	0 1 2 3 4

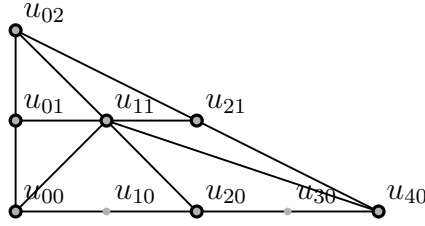
2	1
1	0 8 0
0	1 0 0 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 2 \cdot u_{11} + u_{40} &< u_{20} + 2 \cdot u_{21}
 \end{aligned}$$

## 12. Vertex: $(8, 3, 0, 4, 0, 3, 2, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

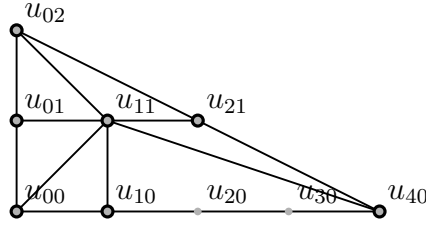
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 4 \cdot u_{20} &< 2 \cdot u_{40} + 2 \cdot u_{00} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{11} + u_{40} &< u_{20} + 2 \cdot u_{21} \\
 2 \cdot u_{11} + u_{00} &< u_{20} + 2 \cdot u_{01}
 \end{aligned}$$

### 13. Vertex: $(8, 4, 0, 0, 4, 2, 2, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

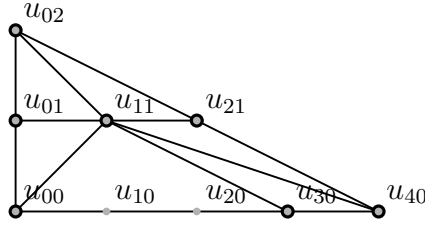
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 4 \cdot u_{10} &< u_{40} + 3 \cdot u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 3 \cdot u_{11} + u_{40} &< u_{10} + 3 \cdot u_{21} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{00} &< u_{10} + u_{01}
 \end{aligned}$$

## 14. Vertex: $(8, 2, 4, 0, 0, 4, 2, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

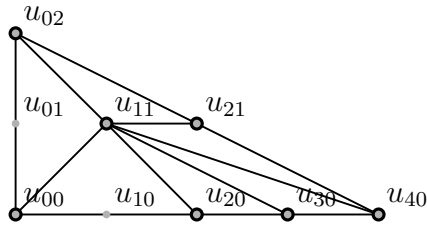
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 4 \cdot u_{30} &< 3 \cdot u_{40} + u_{00} \\
 3 \cdot u_{11} + u_{00} &< u_{30} + 3 \cdot u_{01} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 2 \cdot u_{01} &< u_{00} + u_{02}
 \end{aligned}$$

## 15. Vertex: $(8, 2, 2, 3, 0, 4, 2, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

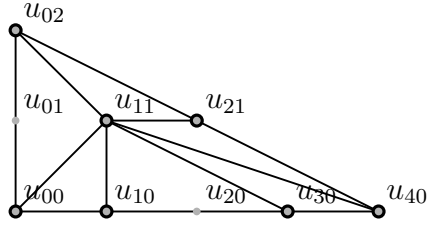
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00}
 \end{aligned}$$

## 16. Vertex: $(8, 2, 3, 0, 3, 3, 2, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

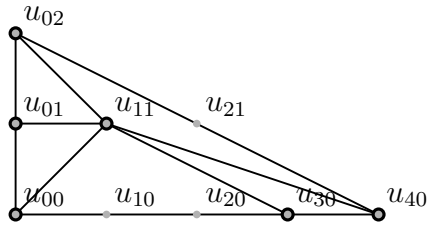
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00}
 \end{aligned}$$

## 17. Vertex: $(8, 3, 4, 0, 0, 4, 0, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

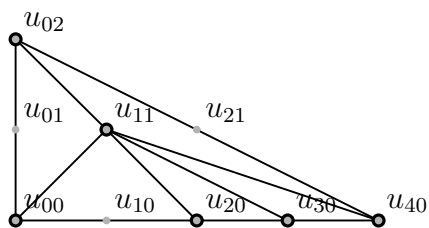
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 3 \cdot u_{11} + u_{00} &< u_{30} + 3 \cdot u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 4 \cdot u_{30} &< 3 \cdot u_{40} + u_{00} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02}
 \end{aligned}$$

## 18. Vertex: $(8, 3, 2, 3, 0, 4, 0, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

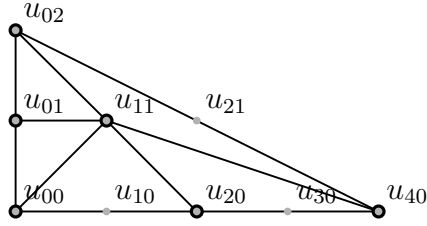
$$\begin{array}{c|cccccc}
 2 & 2 & & & & & \\
 1 & 0 & -4 & 0 & & & \\
 0 & 1 & 0 & 0 & 0 & 1 & \\
 \hline
 c_T(i, j) & 0 & 1 & 2 & 3 & 4 & \\
 \end{array}
 \qquad
 \begin{array}{c|ccccc}
 2 & 1 & & & & \\
 1 & 0 & 8 & 0 & & \\
 0 & 1 & 0 & 0 & 0 & 1 & \\
 \hline
 \eta_T(i, j) & 0 & 1 & 2 & 3 & 4 & \\
 \end{array}$$

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02}
 \end{aligned}$$

## 19. Vertex: $(8, 4, 0, 4, 0, 3, 0, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

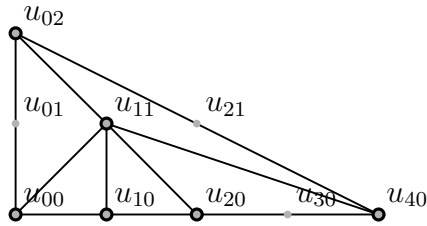
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 4 \cdot u_{20} &< 2 \cdot u_{40} + 2 \cdot u_{00} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{11} + u_{00} &< u_{20} + 2 \cdot u_{01}
 \end{aligned}$$

## 20. Vertex: $(8, 4, 0, 3, 2, 3, 0, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

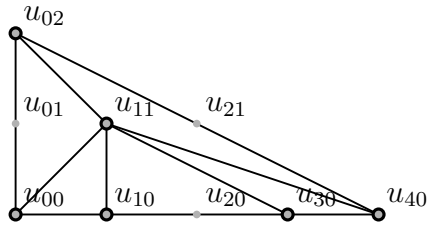
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 2 \cdot u_{10} &< u_{20} + u_{00}
 \end{aligned}$$

## 21. Vertex: $(8, 3, 3, 0, 3, 3, 0, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

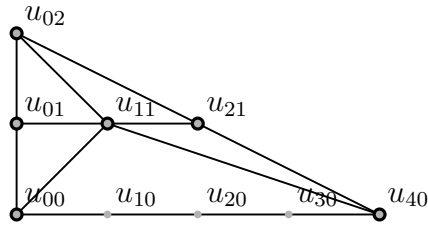
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02}
 \end{aligned}$$

## 22. Vertex: $(8, 5, 0, 0, 0, 5, 2, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

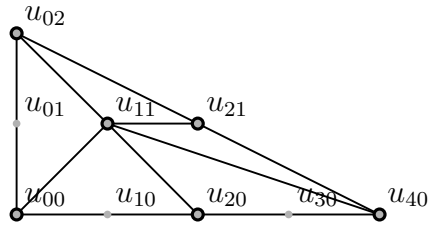
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{40} + 2 \cdot u_{00} &< 4 \cdot u_{20} \\
 u_{40} + 3 \cdot u_{00} &< 4 \cdot u_{10} \\
 3 \cdot u_{40} + u_{00} &< 4 \cdot u_{30} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 4 \cdot u_{11} + u_{00} &< u_{40} + 4 \cdot u_{01} \\
 4 \cdot u_{11} + u_{40} &< u_{00} + 4 \cdot u_{21}
 \end{aligned}$$

### 23. Vertex: $(8, 3, 0, 4, 0, 4, 2, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

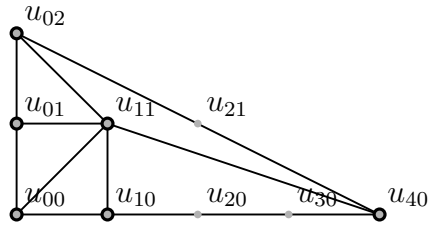
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 4 \cdot u_{20} &< 2 \cdot u_{40} + 2 \cdot u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{11} + u_{40} &< u_{20} + 2 \cdot u_{21}
 \end{aligned}$$

## 24. Vertex: $(8, 5, 0, 0, 4, 2, 0, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

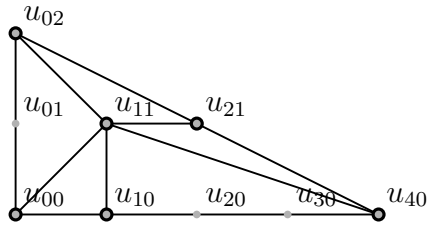
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 4 \cdot u_{10} &< u_{40} + 3 \cdot u_{00} \\
 u_{11} + u_{00} &< u_{10} + u_{01}
 \end{aligned}$$

## 25. Vertex: $(8, 4, 0, 0, 4, 3, 2, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

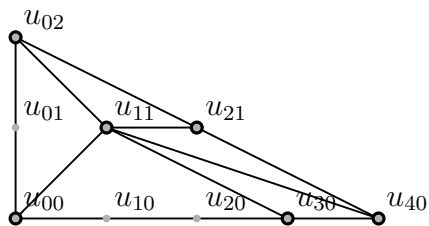
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 3 \cdot u_{11} + u_{40} &< u_{10} + 3 \cdot u_{21} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 4 \cdot u_{10} &< u_{40} + 3 \cdot u_{00}
 \end{aligned}$$

## 26. Vertex: $(8, 2, 4, 0, 0, 5, 2, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

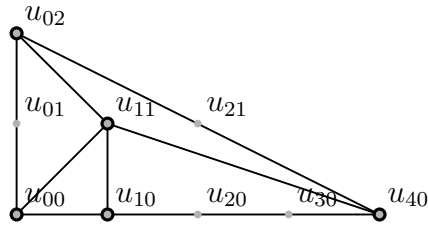
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 4 \cdot u_{30} &< 3 \cdot u_{40} + u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{11} + u_{40} &< u_{30} + u_{21}
 \end{aligned}$$

## 27. Vertex: $(8, 5, 0, 0, 4, 3, 0, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

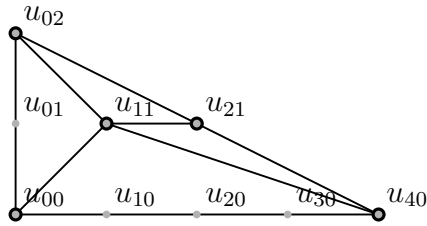
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 4 \cdot u_{10} &< u_{40} + 3 \cdot u_{00} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02}
 \end{aligned}$$

## 28. Vertex: $(8, 5, 0, 0, 0, 6, 2, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

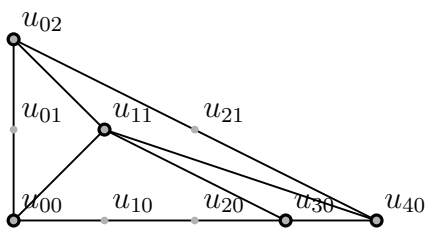
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{40} + 2 \cdot u_{00} &< 4 \cdot u_{20} \\
 u_{40} + 3 \cdot u_{00} &< 4 \cdot u_{10} \\
 3 \cdot u_{40} + u_{00} &< 4 \cdot u_{30} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 4 \cdot u_{11} + u_{40} &< u_{00} + 4 \cdot u_{21}
 \end{aligned}$$

## 29. Vertex: $(8, 3, 4, 0, 0, 5, 0, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

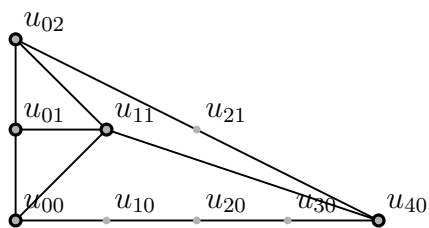
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02} \\
 4 \cdot u_{30} &< 3 \cdot u_{40} + u_{00}
 \end{aligned}$$

### 30. Vertex: $(8, 6, 0, 0, 0, 5, 0, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

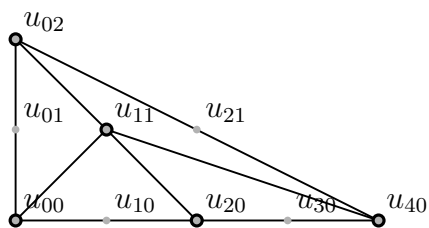
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 3 \cdot u_{40} + u_{00} &< 4 \cdot u_{30} \\
 2 \cdot u_{40} + 2 \cdot u_{00} &< 4 \cdot u_{20} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{40} + 3 \cdot u_{00} &< 4 \cdot u_{10} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 4 \cdot u_{11} + u_{00} &< u_{40} + 4 \cdot u_{01}
 \end{aligned}$$

### 31. Vertex: $(8, 4, 0, 4, 0, 4, 0, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

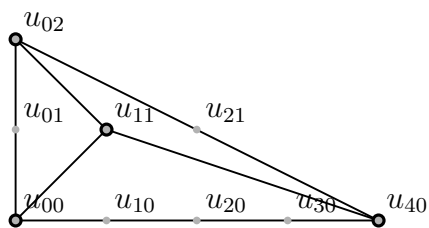
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 4 \cdot u_{20} &< 2 \cdot u_{40} + 2 \cdot u_{00} \\
 8 \cdot u_{11} &< 4 \cdot u_{20} + 4 \cdot u_{02}
 \end{aligned}$$

### 32. Vertex: $(8, 6, 0, 0, 0, 6, 0, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $4 \cdot u_{11} - u_{40} - u_{00} - 2 \cdot u_{02}$

2	2				
1	0	-4	0		
0	1	0	0	0	1
$c_T(i, j)$	0	1	2	3	4

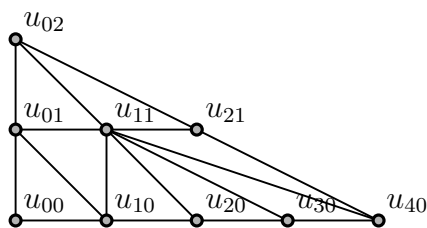
2	1				
1	0	8	0		
0	1	0	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 3 \cdot u_{00} &< 4 \cdot u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 3 \cdot u_{40} + u_{00} &< 4 \cdot u_{30} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{40} + 2 \cdot u_{00} &< 4 \cdot u_{20} \\
 8 \cdot u_{11} &< 2 \cdot u_{40} + 2 \cdot u_{00} + 4 \cdot u_{02}
 \end{aligned}$$

### 33. Vertex: $(7, 2, 2, 2, 3, 1, 2, 3, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

2	2
1	1 -5 0
0	0 1 0 0 1
$c_T(i, j)$	0 1 2 3 4

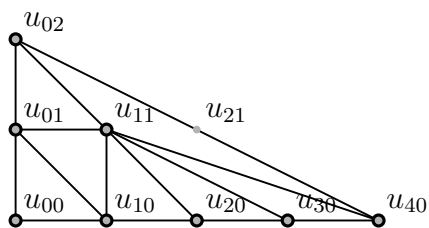
2	1
1	1 7 0
0	0 1 0 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 u_{11} + u_{10} &< u_{20} + u_{01} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 u_{11} + u_{01} &< u_{10} + u_{02}
 \end{aligned}$$

### 34. Vertex: $(7, 3, 2, 2, 3, 1, 0, 3, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

2	2				
1	1	-5	0		
0	0	1	0	0	1
$c_T(i, j)$	0	1	2	3	4

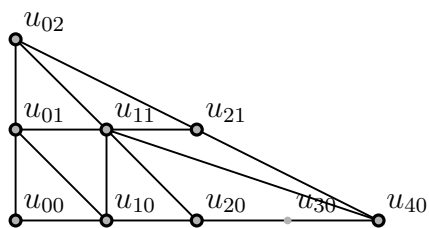
2	1				
1	1	7	0		
0	0	1	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02} \\
 u_{11} + u_{10} &< u_{20} + u_{01}
 \end{aligned}$$

### 35. Vertex: $(7, 3, 0, 3, 3, 1, 2, 3, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

2	2				
1	1	-5	0		
0	0	1	0	0	1
$c_T(i, j)$	0	1	2	3	4

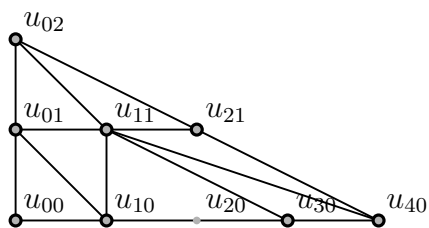
2	1				
1	1	7	0		
0	0	1	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{11} + u_{10} &< u_{20} + u_{01} \\
 2 \cdot u_{11} + u_{40} &< u_{20} + 2 \cdot u_{21}
 \end{aligned}$$

### 36. Vertex: $(7, 2, 3, 0, 4, 1, 2, 3, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

2	2				
1	1	-5	0		
0	0	1	0	0	1
$c_T(i, j)$	0	1	2	3	4

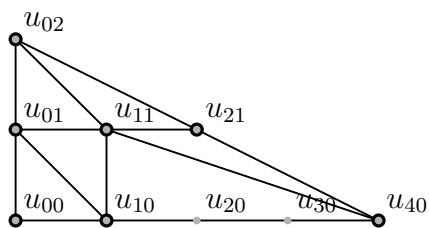
2	1				
1	1	7	0		
0	0	1	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{11} + u_{10} &< u_{30} + 2 \cdot u_{01}
 \end{aligned}$$

### 37. Vertex: $(7, 4, 0, 0, 5, 1, 2, 3, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

2	2
1	1 -5 0
0	0 1 0 0 1
$c_T(i, j)$	0 1 2 3 4

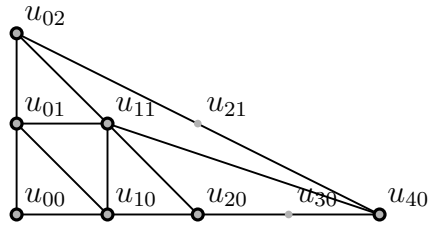
2	1
1	1 7 0
0	0 1 0 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 3 \cdot u_{11} + u_{40} &< u_{10} + 3 \cdot u_{21} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 3 \cdot u_{11} + u_{10} &< u_{40} + 3 \cdot u_{01}
 \end{aligned}$$

### 38. Vertex: $(7, 4, 0, 3, 3, 1, 0, 3, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

2	2
1	1 -5 0
0	0 1 0 0 1
$c_T(i, j)$	0 1 2 3 4

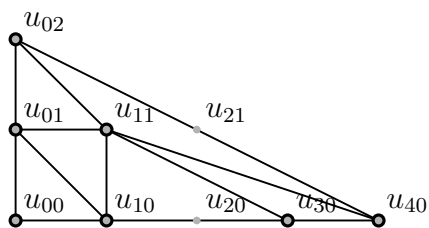
2	1
1	1 7 0
0	0 1 0 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{11} + u_{10} &< u_{20} + u_{01} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10}
 \end{aligned}$$

### 39. Vertex: $(7, 3, 3, 0, 4, 1, 0, 3, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

2	2
1	1 -5 0
0	0 1 0 0 1
$c_T(i, j)$	0 1 2 3 4

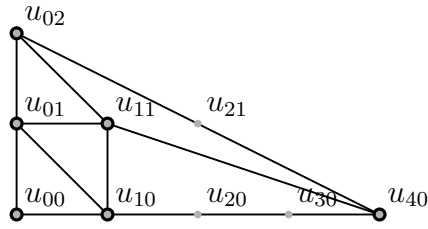
2	1
1	1 7 0
0	0 1 0 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02} \\
 2 \cdot u_{11} + u_{10} &< u_{30} + 2 \cdot u_{01}
 \end{aligned}$$

## 40. Vertex: $(7, 5, 0, 0, 5, 1, 0, 3, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{40} - u_{10} - u_{01} - 2 \cdot u_{02}$

2	2
1	1 -5 0
0	0 1 0 0 1
$c_T(i, j)$	0 1 2 3 4

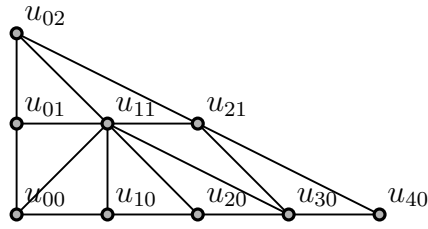
2	1
1	1 7 0
0	0 1 0 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 3 \cdot u_{11} + u_{10} &< u_{40} + 3 \cdot u_{01}
 \end{aligned}$$

## 41. Vertex: $(7, 1, 3, 2, 2, 2, 3, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-5	1		
0	1	0	0	1	0
$c_T(i, j)$	0	1	2	3	4

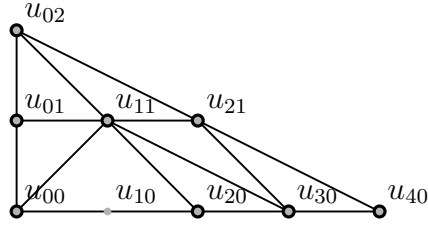
2	1				
1	0	7	1		
0	1	0	0	1	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 u_{11} + u_{30} &< u_{20} + u_{21}
 \end{aligned}$$

## 42. Vertex: $(7, 1, 3, 3, 0, 3, 3, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-5	1		
0	1	0	0	1	0
$c_T(i, j)$	0	1	2	3	4

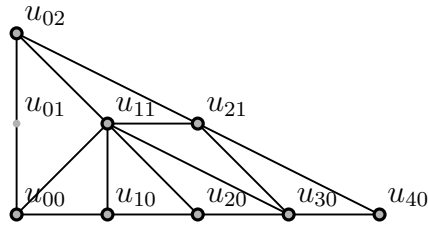
2	1				
1	0	7	1		
0	1	0	0	1	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 u_{11} + u_{30} &< u_{20} + u_{21} \\
 2 \cdot u_{11} + u_{00} &< u_{20} + 2 \cdot u_{01}
 \end{aligned}$$

### 43. Vertex: $(7, 1, 3, 2, 2, 3, 3, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-5	1		
0	1	0	0	1	0
$c_T(i, j)$	0	1	2	3	4

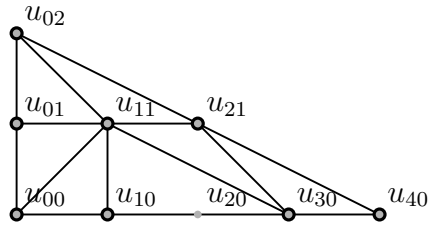
2	1				
1	0	7	1		
0	1	0	0	1	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 u_{11} + u_{30} &< u_{20} + u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{20} &< u_{30} + u_{10}
 \end{aligned}$$

## 44. Vertex: $(7, 1, 4, 0, 3, 2, 3, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-5	1		
0	1	0	0	1	0
$c_T(i, j)$	0	1	2	3	4

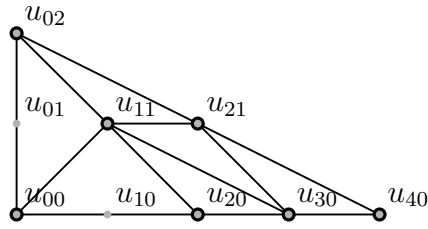
2	1				
1	0	7	1		
0	1	0	0	1	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 2 \cdot u_{11} + u_{30} &< u_{10} + 2 \cdot u_{21}
 \end{aligned}$$

## 45. Vertex: $(7, 1, 3, 3, 0, 4, 3, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-5	1		
0	1	0	0	1	0
$c_T(i, j)$	0	1	2	3	4

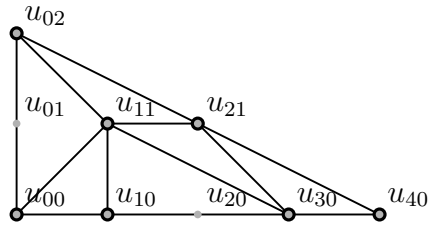
2	1				
1	0	7	1		
0	1	0	0	1	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 u_{11} + u_{30} &< u_{20} + u_{21}
 \end{aligned}$$

## 46. Vertex: $(7, 1, 4, 0, 3, 3, 3, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-5	1		
0	1	0	0	1	0
$c_T(i, j)$	0	1	2	3	4

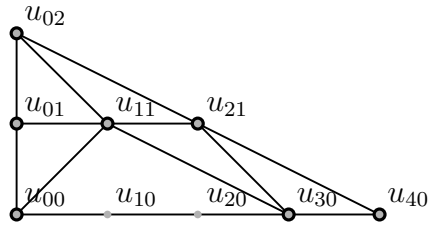
2	1				
1	0	7	1		
0	1	0	0	1	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 2 \cdot u_{11} + u_{30} &< u_{10} + 2 \cdot u_{21}
 \end{aligned}$$

## 47. Vertex: $(7, 1, 5, 0, 0, 4, 3, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

2	2
1	0 -5 1
0	1 0 0 1 0
$c_T(i, j)$	0 1 2 3 4

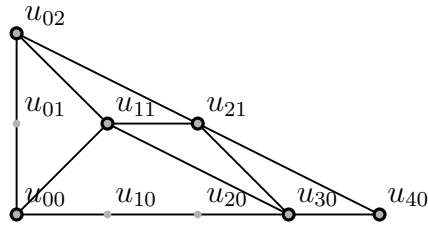
2	1
1	0 7 1
0	1 0 0 1 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 3 \cdot u_{11} + u_{00} &< u_{30} + 3 \cdot u_{01} \\
 3 \cdot u_{11} + u_{30} &< u_{00} + 3 \cdot u_{21} \\
 2 \cdot u_{01} &< u_{00} + u_{02}
 \end{aligned}$$

## 48. Vertex: $(7, 1, 5, 0, 0, 5, 3, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $5 \cdot u_{11} - u_{30} - u_{00} - u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-5	1		
0	1	0	0	1	0
$c_T(i, j)$	0	1	2	3	4

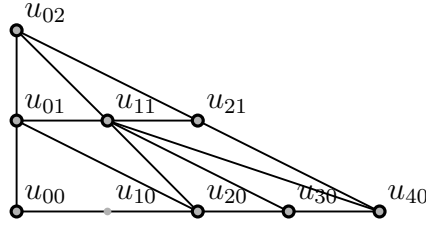
2	1				
1	0	7	1		
0	1	0	0	1	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 3 \cdot u_{11} + u_{30} &< u_{00} + 3 \cdot u_{21}
 \end{aligned}$$

## 49. Vertex: $(6, 2, 2, 4, 0, 2, 2, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	2	-6	0		
0	0	0	1	0	1
$c_T(i, j)$	0	1	2	3	4

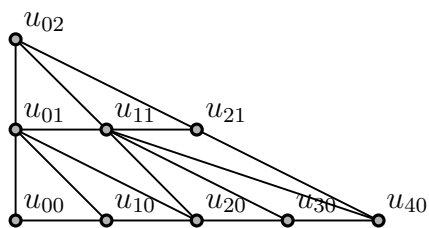
2	1				
1	2	6	0		
0	0	0	1	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{00} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 u_{11} + u_{20} &< u_{30} + u_{01}
 \end{aligned}$$

## 50. Vertex: $(6, 2, 2, 3, 2, 1, 2, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

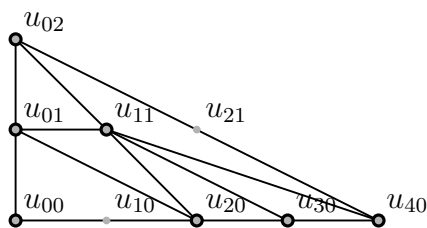
$$\begin{array}{c|ccccc}
 2 & 2 & & & & \\
 1 & 2 & -6 & 0 & & \\
 0 & 0 & 0 & 1 & 0 & 1 \\
 \hline
 c_T(i, j) & 0 & 1 & 2 & 3 & 4
 \end{array}
 \qquad
 \begin{array}{c|ccccc}
 2 & 1 & & & & \\
 1 & 2 & 6 & 0 & & \\
 0 & 0 & 0 & 1 & 0 & 1 \\
 \hline
 \eta_T(i, j) & 0 & 1 & 2 & 3 & 4
 \end{array}$$

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{01} &< u_{11} + u_{10} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{11} + u_{20} &< u_{30} + u_{01} \\
 2 \cdot u_{21} &< u_{40} + u_{02}
 \end{aligned}$$

## 51. Vertex: $(6, 3, 2, 4, 0, 2, 0, 4, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	2 -6 0
0	0 0 1 0 1
$c_T(i, j)$	0 1 2 3 4

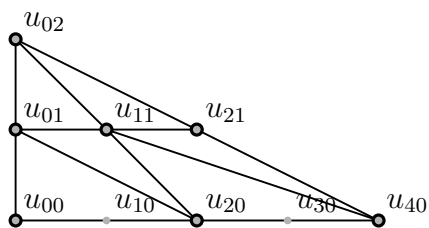
2	1
1	2 6 0
0	0 0 1 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02} \\
 u_{11} + u_{20} &< u_{30} + u_{01}
 \end{aligned}$$

## 52. Vertex: $(6, 3, 0, 5, 0, 2, 2, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	2 -6 0
0	0 0 1 0 1
$c_T(i, j)$	0 1 2 3 4

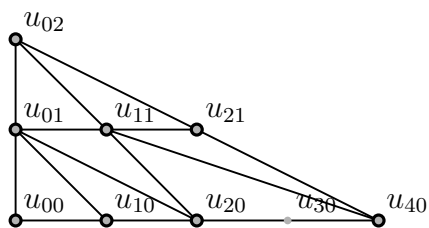
2	1
1	2 6 0
0	0 0 1 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{00} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{11} + u_{40} &< u_{20} + 2 \cdot u_{21} \\
 2 \cdot u_{11} + u_{20} &< u_{40} + 2 \cdot u_{01}
 \end{aligned}$$

### 53. Vertex: $(6, 3, 0, 4, 2, 1, 2, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	2	-6	0		
0	0	0	1	0	1
$c_T(i, j)$	0	1	2	3	4

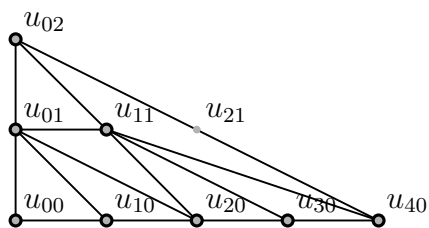
2	1				
1	2	6	0		
0	0	0	1	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{01} &< u_{11} + u_{10} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{11} + u_{40} &< u_{20} + 2 \cdot u_{21} \\
 2 \cdot u_{11} + u_{20} &< u_{40} + 2 \cdot u_{01}
 \end{aligned}$$

## 54. Vertex: $(6, 3, 2, 3, 2, 1, 0, 4, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	2	-6	0		
0	0	0	1	0	1
$c_T(i, j)$	0	1	2	3	4

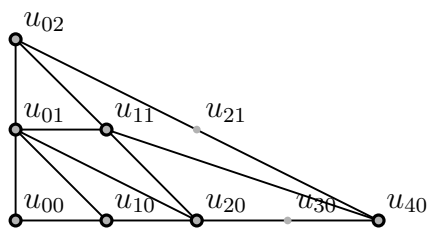
2	1				
1	2	6	0		
0	0	0	1	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{01} &< u_{11} + u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{11} + u_{20} &< u_{30} + u_{01} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02}
 \end{aligned}$$

## 55. Vertex: $(6, 4, 0, 4, 2, 1, 0, 4, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	2	-6	0		
0	0	0	1	0	1
$c_T(i, j)$	0	1	2	3	4

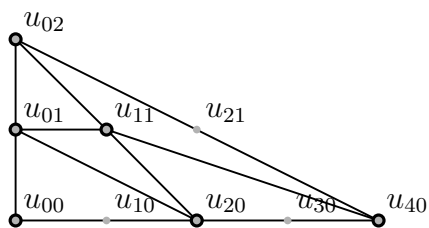
2	1				
1	2	6	0		
0	0	0	1	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{01} &< u_{11} + u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{11} + u_{20} &< u_{40} + 2 \cdot u_{01} \\
 6 \cdot u_{11} &< 3 \cdot u_{20} + 3 \cdot u_{02}
 \end{aligned}$$

## 56. Vertex: $(6, 4, 0, 5, 0, 2, 0, 4, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - u_{20} - 2 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	2	-6	0		
0	0	0	1	0	1
$c_T(i, j)$	0	1	2	3	4

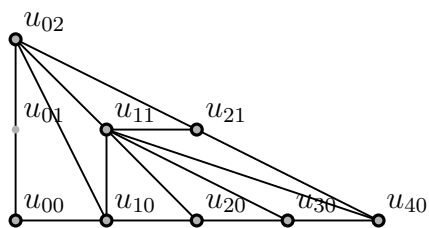
2	1				
1	2	6	0		
0	0	0	1	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{11} + u_{20} &< u_{40} + 2 \cdot u_{01} \\
 6 \cdot u_{11} &< 3 \cdot u_{20} + 3 \cdot u_{02}
 \end{aligned}$$

## 57. Vertex: $(6, 2, 2, 2, 4, 2, 2, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	0	2	0	0	1
$c_T(i, j)$	0	1	2	3	4

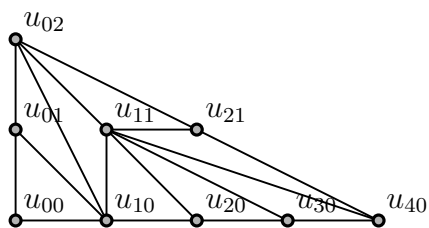
2	2				
1	0	6	0		
0	0	2	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{11} + u_{40} &< u_{30} + u_{21}
 \end{aligned}$$

## 58. Vertex: (6, 2, 2, 2, 4, 1, 2, 2, 3)

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	0	2	0	0	1
$c_T(i, j)$	0	1	2	3	4

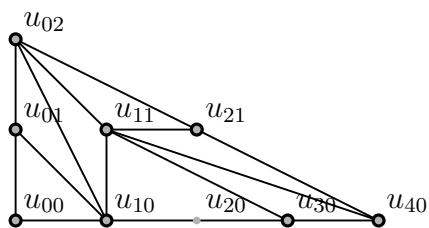
2	2				
1	0	6	0		
0	0	2	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 2 \cdot u_{21} &< u_{40} + u_{02}
 \end{aligned}$$

## 59. Vertex: $(6, 2, 3, 0, 5, 1, 2, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3
1	0 -6 0
0	0 2 0 0 1
$c_T(i, j)$	0 1 2 3 4

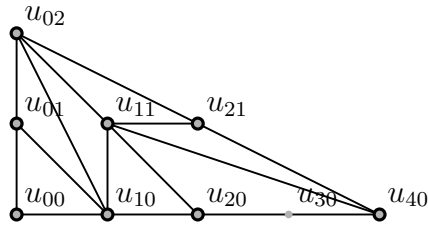
2	2
1	0 6 0
0	0 2 0 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10}
 \end{aligned}$$

## 60. Vertex: $(6, 3, 0, 3, 4, 1, 2, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	0	2	0	0	1
$c_T(i, j)$	0	1	2	3	4

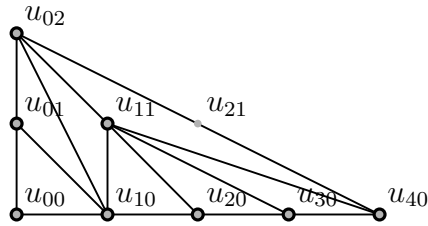
2	2				
1	0	6	0		
0	0	2	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 2 \cdot u_{11} + u_{40} &< u_{20} + 2 \cdot u_{21}
 \end{aligned}$$

## 61. Vertex: (6, 3, 2, 2, 4, 1, 0, 2, 4)

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	0	2	0	0	1
$c_T(i, j)$	0	1	2	3	4

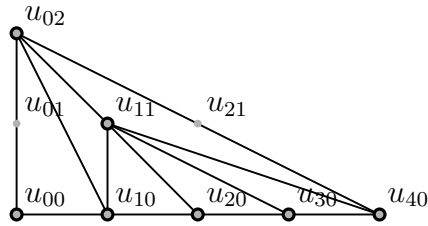
2	2				
1	0	6	0		
0	0	2	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02}
 \end{aligned}$$

## 62. Vertex: $(6, 3, 2, 2, 4, 2, 0, 0, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	0	2	0	0	1
$c_T(i, j)$	0	1	2	3	4

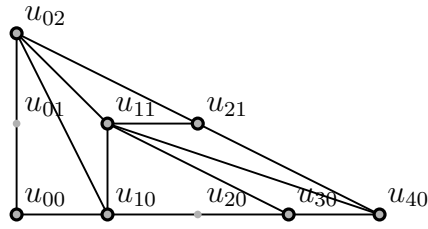
2	2				
1	0	6	0		
0	0	2	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02}
 \end{aligned}$$

### 63. Vertex: (6, 2, 3, 0, 5, 2, 2, 0, 4)

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3
1	0 -6 0
0	0 2 0 0 1
$c_T(i, j)$	0 1 2 3 4

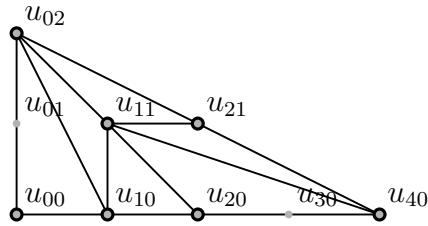
2	2
1	0 6 0
0	0 2 0 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{11} + u_{40} &< u_{30} + u_{21}
 \end{aligned}$$

## 64. Vertex: (6, 3, 0, 3, 4, 2, 2, 0, 4)

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	0	2	0	0	1
$c_T(i, j)$	0	1	2	3	4

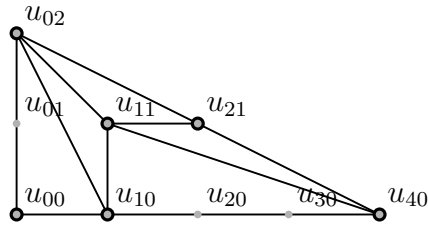
2	2				
1	0	6	0		
0	0	2	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{11} + u_{40} &< u_{20} + 2 \cdot u_{21}
 \end{aligned}$$

## 65. Vertex: $(6, 4, 0, 0, 6, 2, 2, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	0	2	0	0	1
$c_T(i, j)$	0	1	2	3	4

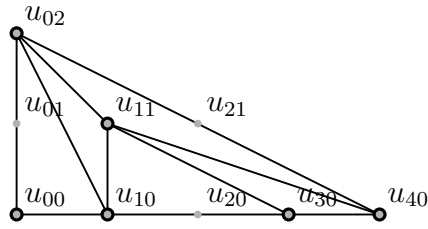
2	2				
1	0	6	0		
0	0	2	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 3 \cdot u_{11} + u_{40} &< u_{10} + 3 \cdot u_{21}
 \end{aligned}$$

## 66. Vertex: $(6, 3, 3, 0, 5, 2, 0, 0, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	0	2	0	0	1
$c_T(i, j)$	0	1	2	3	4

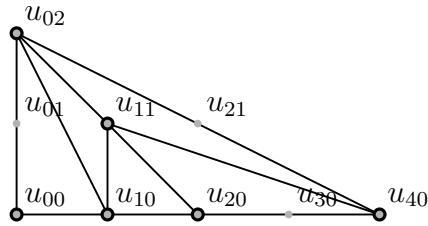
2	2				
1	0	6	0		
0	0	2	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10}
 \end{aligned}$$

## 67. Vertex: $(6, 4, 0, 3, 4, 2, 0, 0, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3
1	0 -6 0
0	0 2 0 0 1
$c_T(i, j)$	0 1 2 3 4

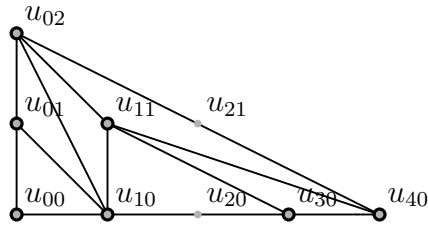
2	2
1	0 6 0
0	0 2 0 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 6 \cdot u_{11} &< 3 \cdot u_{20} + 3 \cdot u_{02}
 \end{aligned}$$

## 68. Vertex: $(6, 3, 3, 0, 5, 1, 0, 2, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	0	2	0	0	1
$c_T(i, j)$	0	1	2	3	4

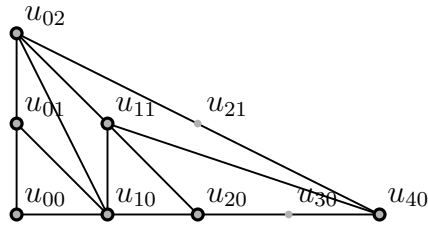
2	2				
1	0	6	0		
0	0	2	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02}
 \end{aligned}$$

## 69. Vertex: $(6, 4, 0, 3, 4, 1, 0, 2, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	0	2	0	0	1
$c_T(i, j)$	0	1	2	3	4

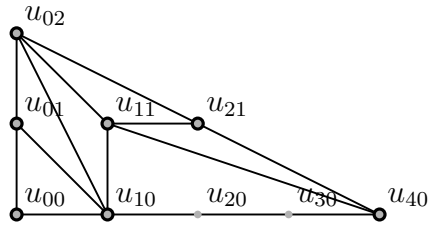
2	2				
1	0	6	0		
0	0	2	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 6 \cdot u_{11} &< 3 \cdot u_{20} + 3 \cdot u_{02}
 \end{aligned}$$

## 70. Vertex: $(6, 4, 0, 0, 6, 1, 2, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	0	2	0	0	1
$c_T(i, j)$	0	1	2	3	4

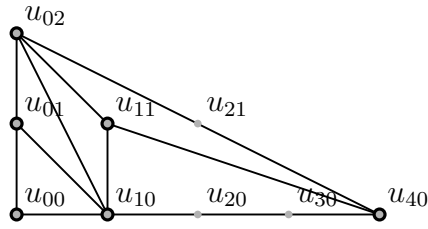
2	2				
1	0	6	0		
0	0	2	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 3 \cdot u_{11} + u_{40} &< u_{10} + 3 \cdot u_{21}
 \end{aligned}$$

## 71. Vertex: $(6, 5, 0, 0, 6, 1, 0, 2, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3
1	0 -6 0
0	0 2 0 0 1
$c_T(i, j)$	0 1 2 3 4

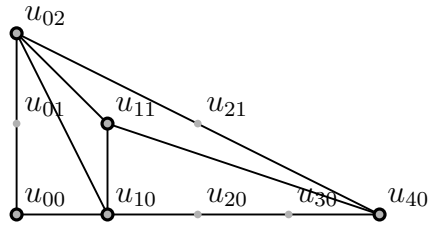
2	2
1	0 6 0
0	0 2 0 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 6 \cdot u_{11} &< u_{40} + 2 \cdot u_{10} + 3 \cdot u_{02}
 \end{aligned}$$

## 72. Vertex: $(6, 5, 0, 0, 6, 2, 0, 0, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{40} - 2 \cdot u_{10} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	0	2	0	0	1
$c_T(i, j)$	0	1	2	3	4

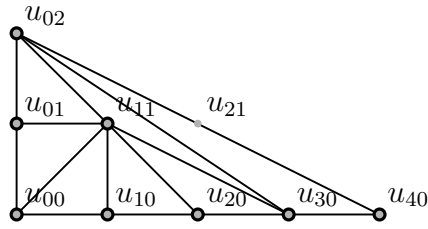
2	2				
1	0	6	0		
0	0	2	0	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 6 \cdot u_{11} &< u_{40} + 2 \cdot u_{10} + 3 \cdot u_{02}
 \end{aligned}$$

### 73. Vertex: $(6, 2, 4, 2, 2, 2, 0, 2, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3
1	0 -6 0
0	1 0 0 2 0
$c_T(i, j)$	0 1 2 3 4

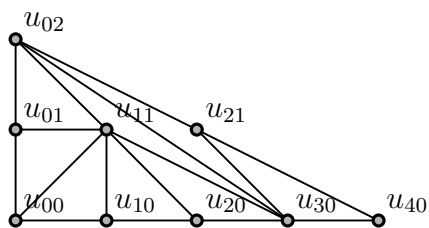
2	2
1	0 6 0
0	1 0 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 2 \cdot u_{20} &< u_{30} + u_{10}
 \end{aligned}$$

## 74. Vertex: $(6, 1, 4, 2, 2, 2, 2, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	1	0	0	2	0
$c_T(i, j)$	0	1	2	3	4

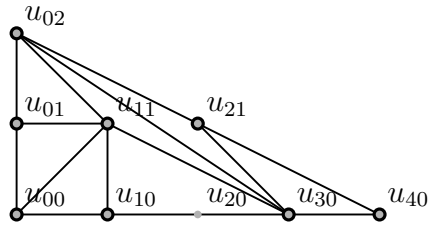
2	2				
1	0	6	0		
0	1	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{10} &< u_{20} + u_{00}
 \end{aligned}$$

## 75. Vertex: $(6, 1, 5, 0, 3, 2, 2, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	1	0	0	2	0
$c_T(i, j)$	0	1	2	3	4

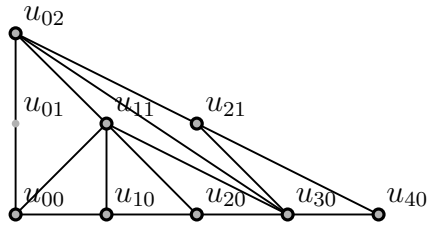
2	2				
1	0	6	0		
0	1	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02}
 \end{aligned}$$

## 76. Vertex: $(6, 1, 4, 2, 2, 3, 2, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	1	0	0	2	0
$c_T(i, j)$	0	1	2	3	4

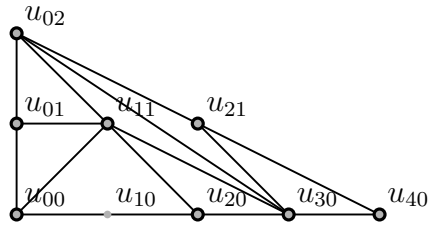
2	2				
1	0	6	0		
0	1	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 2 \cdot u_{20} &< u_{30} + u_{10}
 \end{aligned}$$

## 77. Vertex: $(6, 1, 4, 3, 0, 3, 2, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3
1	0 -6 0
0	1 0 0 2 0
$c_T(i, j)$	0 1 2 3 4

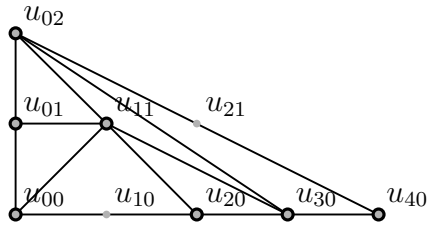
2	2
1	0 6 0
0	1 0 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{11} + u_{00} &< u_{20} + 2 \cdot u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00}
 \end{aligned}$$

## 78. Vertex: $(6, 2, 4, 3, 0, 3, 0, 2, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	1	0	0	2	0
$c_T(i, j)$	0	1	2	3	4

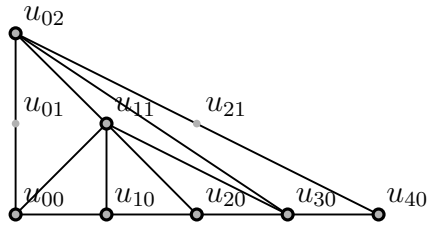
2	2				
1	0	6	0		
0	1	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{11} + u_{00} &< u_{20} + 2 \cdot u_{01}
 \end{aligned}$$

## 79. Vertex: $(6, 2, 4, 2, 2, 3, 0, 0, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	1	0	0	2	0
$c_T(i, j)$	0	1	2	3	4

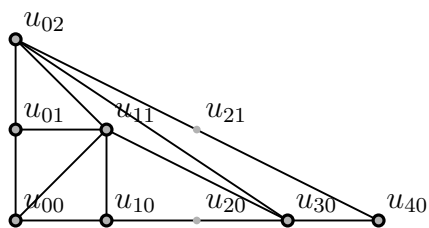
2	2				
1	0	6	0		
0	1	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{20} &< u_{30} + u_{10}
 \end{aligned}$$

## 80. Vertex: $(6, 2, 5, 0, 3, 2, 0, 2, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3
1	0 -6 0
0	1 0 0 2 0
$c_T(i, j)$	0 1 2 3 4

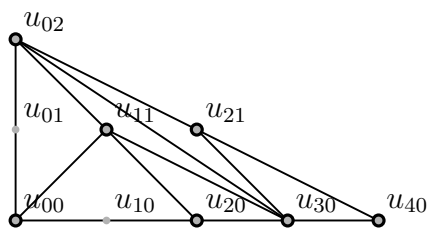
2	2
1	0 6 0
0	1 0 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{00} &< u_{10} + u_{01}
 \end{aligned}$$

## 81. Vertex: $(6, 1, 4, 3, 0, 4, 2, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	1	0	0	2	0
$c_T(i, j)$	0	1	2	3	4

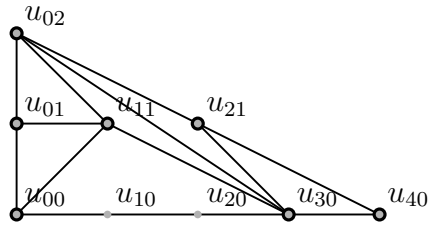
2	2				
1	0	6	0		
0	1	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 6 \cdot u_{11} &< 3 \cdot u_{20} + 3 \cdot u_{02}
 \end{aligned}$$

## 82. Vertex: $(6, 1, 6, 0, 0, 4, 2, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	1	0	0	2	0
$c_T(i, j)$	0	1	2	3	4

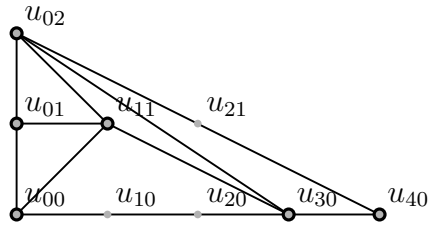
2	2				
1	0	6	0		
0	1	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 3 \cdot u_{11} + u_{00} &< u_{30} + 3 \cdot u_{01}
 \end{aligned}$$

### 83. Vertex: $(6, 2, 6, 0, 0, 4, 0, 2, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3
1	0 -6 0
0	1 0 0 2 0
$c_T(i, j)$	0 1 2 3 4

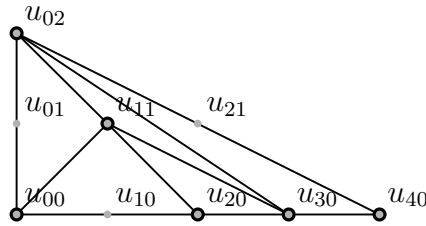
2	2
1	0 6 0
0	1 0 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 3 \cdot u_{11} + u_{00} &< u_{30} + 3 \cdot u_{01}
 \end{aligned}$$

### 84. Vertex: $(6, 2, 4, 3, 0, 4, 0, 0, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	1	0	0	2	0
$c_T(i, j)$	0	1	2	3	4

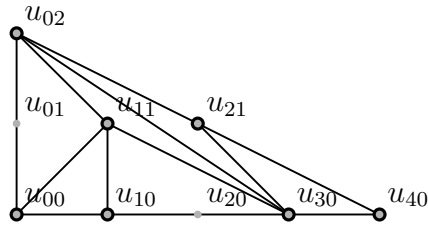
2	2				
1	0	6	0		
0	1	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 6 \cdot u_{11} &< 3 \cdot u_{20} + 3 \cdot u_{02}
 \end{aligned}$$

## 85. Vertex: (6, 1, 5, 0, 3, 3, 2, 0, 4)

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	1	0	0	2	0
$c_T(i, j)$	0	1	2	3	4

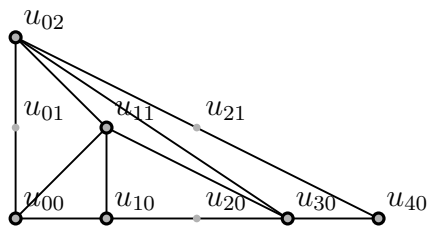
2	2				
1	0	6	0		
0	1	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02}
 \end{aligned}$$

## 86. Vertex: $(6, 2, 5, 0, 3, 3, 0, 0, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3
1	0 -6 0
0	1 0 0 2 0
$c_T(i, j)$	0 1 2 3 4

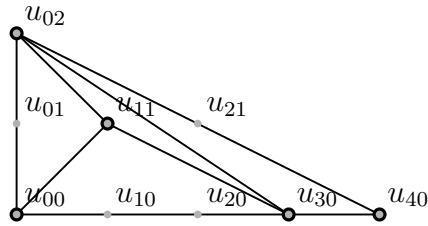
2	2
1	0 6 0
0	1 0 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00}
 \end{aligned}$$

## 87. Vertex: $(6, 2, 6, 0, 0, 5, 0, 0, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3
1	0 -6 0
0	1 0 0 2 0
$c_T(i, j)$	0 1 2 3 4

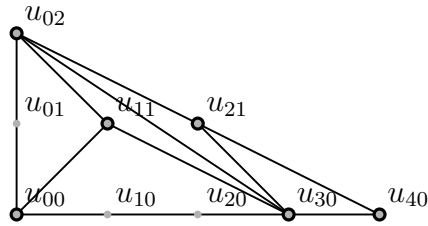
2	2
1	0 6 0
0	1 0 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 6 \cdot u_{11} &< 2 \cdot u_{30} + u_{00} + 3 \cdot u_{02}
 \end{aligned}$$

## 88. Vertex: $(6, 1, 6, 0, 0, 5, 2, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - 2 \cdot u_{30} - u_{00} - 3 \cdot u_{02}$

2	3				
1	0	-6	0		
0	1	0	0	2	0
$c_T(i, j)$	0	1	2	3	4

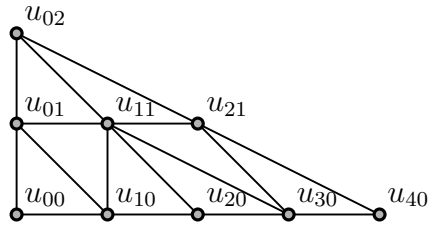
2	2				
1	0	6	0		
0	1	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 6 \cdot u_{11} &< 2 \cdot u_{30} + u_{00} + 3 \cdot u_{02}
 \end{aligned}$$

## 89. Vertex: $(6, 1, 3, 2, 3, 1, 3, 3, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{30} - u_{10} - u_{21} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{30} - u_{10} - u_{21} - u_{01} - 2 \cdot u_{02}$

2	2				
1	1	-6	1		
0	0	1	0	1	0
$c_T(i, j)$	0	1	2	3	4

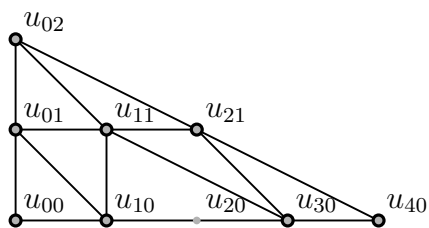
2	1				
1	1	6	1		
0	0	1	0	1	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 u_{11} + u_{10} &< u_{20} + u_{01} \\
 u_{11} + u_{30} &< u_{20} + u_{21} \\
 2 \cdot u_{20} &< u_{30} + u_{10}
 \end{aligned}$$

## 90. Vertex: $(6, 1, 4, 0, 4, 1, 3, 3, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{30} - u_{10} - u_{21} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{30} - u_{10} - u_{21} - u_{01} - 2 \cdot u_{02}$

2	2				
1	1	-6	1		
0	0	1	0	1	0
$c_T(i, j)$	0	1	2	3	4

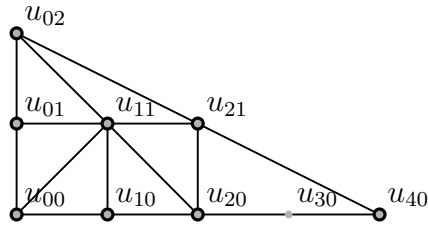
2	1				
1	1	6	1		
0	0	1	0	1	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 2 \cdot u_{11} + u_{30} &< u_{10} + 2 \cdot u_{21} \\
 2 \cdot u_{11} + u_{10} &< u_{30} + 2 \cdot u_{01} \\
 u_{11} + u_{01} &< u_{10} + u_{02}
 \end{aligned}$$

## 91. Vertex: $(6, 2, 0, 4, 2, 2, 4, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-6	2		
0	1	0	1	0	0
$c_T(i, j)$	0	1	2	3	4

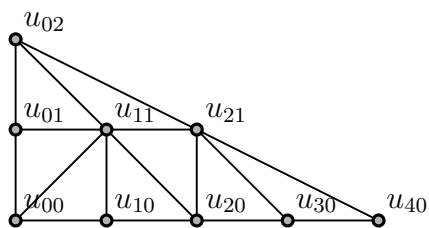
2	1				
1	0	6	2		
0	1	0	1	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{40} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{20} &< u_{10} + u_{21}
 \end{aligned}$$

## 92. Vertex: $(6, 1, 2, 3, 2, 2, 4, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-6	2		
0	1	0	1	0	0
$c_T(i, j)$	0	1	2	3	4

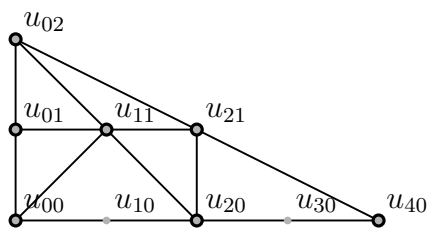
2	1				
1	0	6	2		
0	1	0	1	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{21} &< u_{11} + u_{30} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{20} &< u_{10} + u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00}
 \end{aligned}$$

### 93. Vertex: $(6, 2, 0, 5, 0, 3, 4, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-6	2		
0	1	0	1	0	0
$c_T(i, j)$	0	1	2	3	4

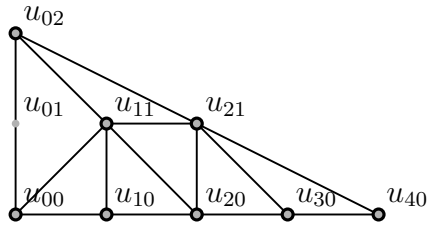
2	1				
1	0	6	2		
0	1	0	1	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{40} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{11} + u_{00} &< u_{20} + 2 \cdot u_{01} \\
 2 \cdot u_{11} + u_{20} &< u_{00} + 2 \cdot u_{21}
 \end{aligned}$$

## 94. Vertex: $(6, 1, 2, 3, 2, 3, 4, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-6	2		
0	1	0	1	0	0
$c_T(i, j)$	0	1	2	3	4

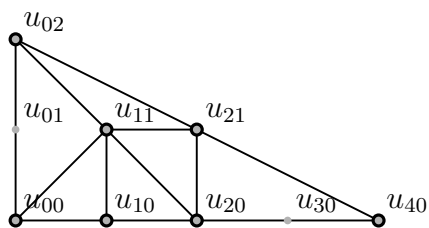
2	1				
1	0	6	2		
0	1	0	1	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{21} &< u_{11} + u_{30} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 u_{11} + u_{20} &< u_{10} + u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00}
 \end{aligned}$$

## 95. Vertex: $(6, 2, 0, 4, 2, 3, 4, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-6	2		
0	1	0	1	0	0
$c_T(i, j)$	0	1	2	3	4

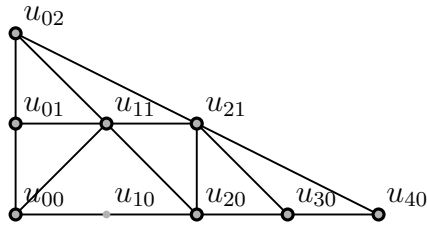
2	1				
1	0	6	2		
0	1	0	1	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{40} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{11} + u_{20} &< u_{10} + u_{21} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 2 \cdot u_{10} &< u_{20} + u_{00}
 \end{aligned}$$

## 96. Vertex: $(6, 1, 2, 4, 0, 3, 4, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-6	2		
0	1	0	1	0	0
$c_T(i, j)$	0	1	2	3	4

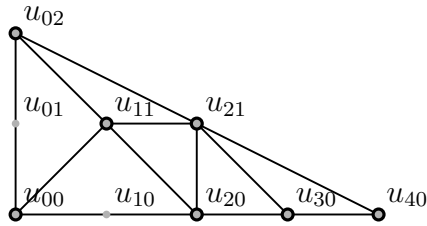
2	1				
1	0	6	2		
0	1	0	1	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{21} &< u_{11} + u_{30} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{11} + u_{00} &< u_{20} + 2 \cdot u_{01} \\
 2 \cdot u_{11} + u_{20} &< u_{00} + 2 \cdot u_{21}
 \end{aligned}$$

## 97. Vertex: $(6, 1, 2, 4, 0, 4, 4, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-6	2		
0	1	0	1	0	0
$c_T(i, j)$	0	1	2	3	4

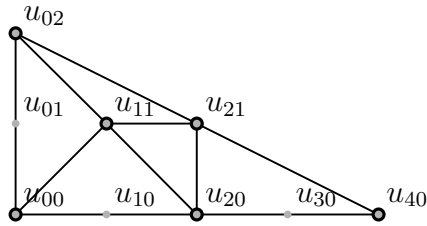
2	1				
1	0	6	2		
0	1	0	1	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{20} + u_{21} &< u_{11} + u_{30} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{11} + u_{20} &< u_{00} + 2 \cdot u_{21} \\
 6 \cdot u_{11} &< 3 \cdot u_{20} + 3 \cdot u_{02}
 \end{aligned}$$

## 98. Vertex: $(6, 2, 0, 5, 0, 4, 4, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $6 \cdot u_{11} - u_{20} - u_{00} - 2 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-6	2		
0	1	0	1	0	0
$c_T(i, j)$	0	1	2	3	4

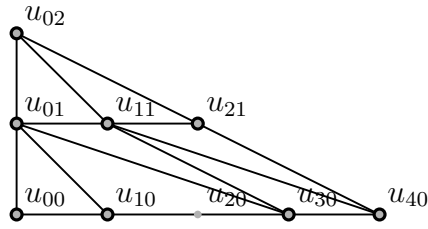
2	1				
1	0	6	2		
0	1	0	1	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{40} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{11} + u_{20} &< u_{00} + 2 \cdot u_{21} \\
 6 \cdot u_{11} &< 3 \cdot u_{20} + 3 \cdot u_{02}
 \end{aligned}$$

## 99. Vertex: $(5, 2, 4, 0, 3, 1, 2, 5, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	3	-7	0		
0	0	0	0	1	1
$c_T(i, j)$	0	1	2	3	4

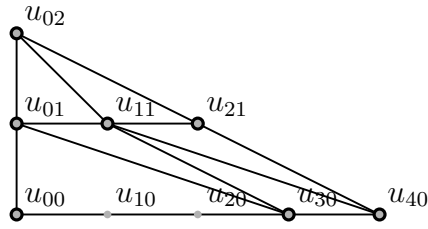
2	1				
1	3	5	0		
0	0	0	0	1	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{10} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 u_{11} + u_{30} &< u_{40} + u_{01} \\
 2 \cdot u_{21} &< u_{40} + u_{02}
 \end{aligned}$$

# 100. Vertex: $(5, 2, 5, 0, 0, 3, 2, 5, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	3 -7 0
0	0 0 0 1 1
$c_T(i, j)$	0 1 2 3 4

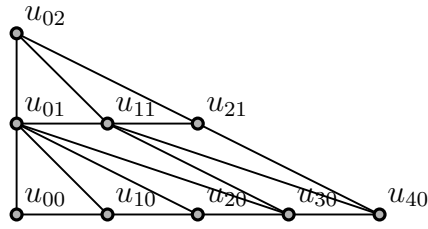
2	1
1	3 5 0
0	0 0 0 1 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + 3 \cdot u_{01} &< 3 \cdot u_{11} + u_{00} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{11} + u_{30} &< u_{40} + u_{01} \\
 u_{11} + u_{40} &< u_{30} + u_{21}
 \end{aligned}$$

# 101. Vertex: $(5, 2, 3, 2, 2, 1, 2, 5, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	3	-7	0		
0	0	0	0	1	1
$c_T(i, j)$	0	1	2	3	4

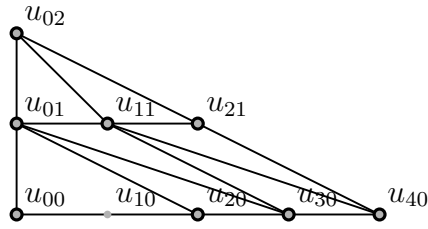
2	1				
1	3	5	0		
0	0	0	0	1	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} &< u_{11} + u_{20} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 u_{11} + u_{30} &< u_{40} + u_{01}
 \end{aligned}$$

## 102. Vertex: $(5, 2, 3, 3, 0, 2, 2, 5, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	3	-7	0		
0	0	0	0	1	1
$c_T(i, j)$	0	1	2	3	4

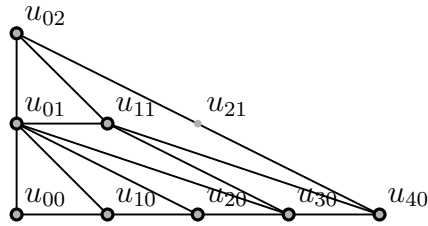
2	1				
1	3	5	0		
0	0	0	0	1	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} &< u_{11} + u_{20} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{11} + u_{40} &< u_{30} + u_{21} \\
 u_{11} + u_{30} &< u_{40} + u_{01} \\
 2 \cdot u_{21} &< u_{40} + u_{02}
 \end{aligned}$$

### 103. Vertex: $(5, 3, 3, 2, 2, 1, 0, 5, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	3 -7 0
0	0 0 0 1 1
$c_T(i, j)$	0 1 2 3 4

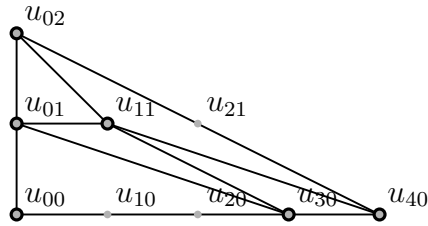
2	1
1	3 5 0
0	0 0 0 1 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{30} + u_{01} &< u_{11} + u_{20} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 u_{11} + u_{30} &< u_{40} + u_{01} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02}
 \end{aligned}$$

### 104. Vertex: $(5, 3, 5, 0, 0, 3, 0, 5, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	3 -7 0
0	0 0 0 1 1
$c_T(i, j)$	0 1 2 3 4

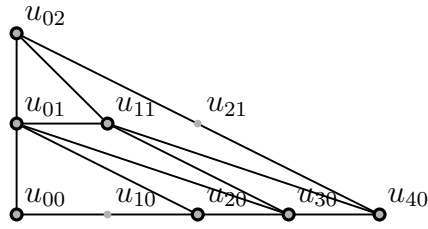
2	1
1	3 5 0
0	0 0 0 1 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + 3 \cdot u_{01} &< 3 \cdot u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02} \\
 u_{11} + u_{30} &< u_{40} + u_{01}
 \end{aligned}$$

## 105. Vertex: $(5, 3, 3, 3, 0, 2, 0, 5, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	3	-7	0		
0	0	0	0	1	1
$c_T(i, j)$	0	1	2	3	4

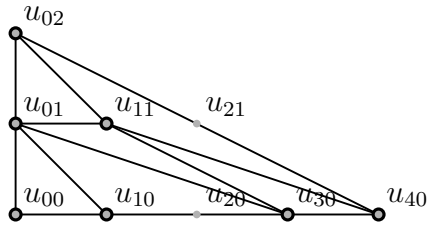
2	1				
1	3	5	0		
0	0	0	0	1	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} &< u_{11} + u_{20} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 u_{11} + u_{30} &< u_{40} + u_{01} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02}
 \end{aligned}$$

# 106. Vertex: $(5, 3, 4, 0, 3, 1, 0, 5, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{40} - u_{30} - 3 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	3 -7 0
0	0 0 0 1 1
$c_T(i, j)$	0 1 2 3 4

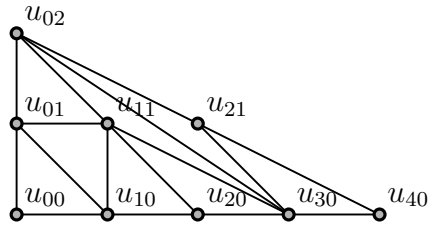
2	1
1	3 5 0
0	0 0 0 1 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 2 \cdot u_{11} + u_{40} &< 2 \cdot u_{30} + u_{02} \\
 u_{11} + u_{30} &< u_{40} + u_{01}
 \end{aligned}$$

# 107. Vertex: $(5, 1, 4, 2, 3, 1, 2, 3, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - 2 \cdot u_{30} - u_{10} - u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - 2 \cdot u_{30} - u_{10} - u_{01} - 3 \cdot u_{02}$

2	3				
1	1	-7	0		
0	0	0	1	0	2
$c_T(i, j)$	0	1	2	3	4

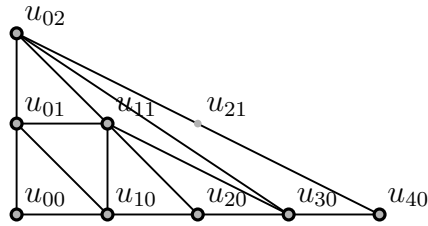
2	2				
1	1	5	0		
0	0	0	1	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 u_{11} + u_{10} &< u_{20} + u_{01}
 \end{aligned}$$

### 108. Vertex: $(5, 2, 4, 2, 3, 1, 0, 3, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - 2 \cdot u_{30} - u_{10} - u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - 2 \cdot u_{30} - u_{10} - u_{01} - 3 \cdot u_{02}$

2	3				
1	1	-7	0		
0	0	1	0	2	0
$c_T(i, j)$	0	1	2	3	4

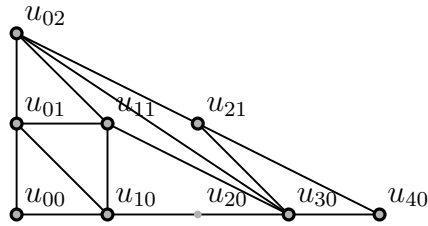
2	2				
1	1	5	0		
0	0	1	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{11} + u_{10} &< u_{20} + u_{01} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 2 \cdot u_{20} &< u_{30} + u_{10}
 \end{aligned}$$

# 109. Vertex: $(5, 1, 5, 0, 4, 1, 2, 3, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - 2 \cdot u_{30} - u_{10} - u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - 2 \cdot u_{30} - u_{10} - u_{01} - 3 \cdot u_{02}$

2	3				
1	1	-7	0		
0	0	1	0	2	0
$c_T(i, j)$	0	1	2	3	4

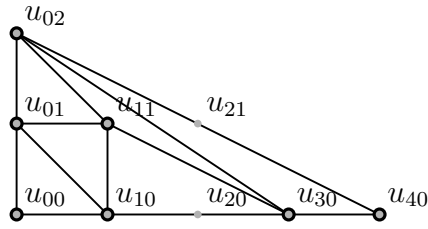
2	2				
1	1	5	0		
0	0	1	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{11} + u_{10} &< u_{30} + 2 \cdot u_{01} \\
 u_{11} + u_{01} &< u_{10} + u_{02}
 \end{aligned}$$

# 110. Vertex: $(5, 2, 5, 0, 4, 1, 0, 3, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - 2 \cdot u_{30} - u_{10} - u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - 2 \cdot u_{30} - u_{10} - u_{01} - 3 \cdot u_{02}$

2	3
1	1 -7 0
0	0 1 0 2 0
$c_T(i, j)$	0 1 2 3 4

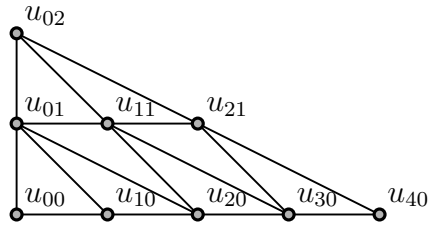
2	2
1	1 5 0
0	0 1 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 2 \cdot u_{11} + u_{10} &< u_{30} + 2 \cdot u_{01}
 \end{aligned}$$

# 111. Vertex: $(5, 1, 3, 3, 2, 1, 3, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{30} - u_{20} - u_{21} - 2 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{30} - u_{20} - u_{21} - 2 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	2	-7	1		
0	0	0	1	1	0
$c_T(i, j)$	0	1	2	3	4

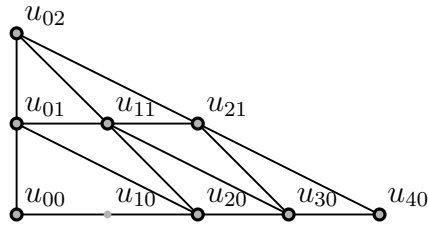
2	1				
1	2	5	1		
0	0	0	1	1	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{20} + u_{01} &< u_{11} + u_{10} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 u_{11} + u_{30} &< u_{20} + u_{21} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 u_{11} + u_{20} &< u_{30} + u_{01}
 \end{aligned}$$

## 112. Vertex: $(5, 1, 3, 4, 0, 2, 3, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{30} - u_{20} - u_{21} - 2 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{30} - u_{20} - u_{21} - 2 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	2 -7 1
0	0 0 1 1 0
$c_T(i, j)$	0 1 2 3 4

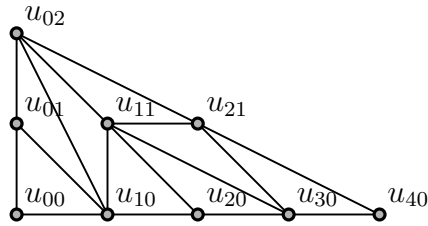
2	1
1	2 5 1
0	0 0 1 1 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{00} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 u_{11} + u_{30} &< u_{20} + u_{21} \\
 u_{11} + u_{20} &< u_{30} + u_{01}
 \end{aligned}$$

### 113. Vertex: $(5, 1, 3, 2, 4, 1, 3, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{30} - 2 \cdot u_{10} - u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{30} - 2 \cdot u_{10} - u_{21} - 3 \cdot u_{02}$

2	3				
1	0	-7	1		
0	0	2	0	1	0
$c_T(i, j)$	0	1	2	3	4

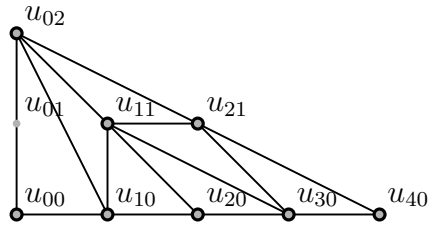
2	2				
1	0	5	1		
0	0	2	0	1	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{30} &< u_{20} + u_{21} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 u_{11} + u_{21} &< u_{30} + u_{02}
 \end{aligned}$$

### 114. Vertex: $(5, 1, 3, 2, 4, 2, 3, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{30} - 2 \cdot u_{10} - u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{30} - 2 \cdot u_{10} - u_{21} - 3 \cdot u_{02}$

2	3				
1	0	-7	1		
0	0	2	0	1	0
$c_T(i, j)$	0	1	2	3	4

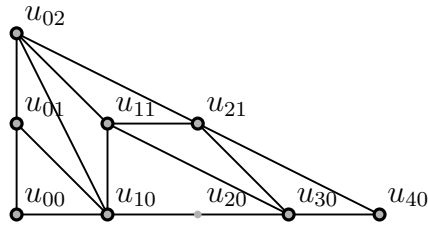
2	2				
1	0	5	1		
0	0	2	0	1	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{11} + u_{30} &< u_{20} + u_{21} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 u_{11} + u_{21} &< u_{30} + u_{02}
 \end{aligned}$$

## 115. Vertex: $(5, 1, 4, 0, 5, 1, 3, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{30} - 2 \cdot u_{10} - u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{30} - 2 \cdot u_{10} - u_{21} - 3 \cdot u_{02}$

2	3				
1	0	-7	1		
0	0	2	0	1	0
$c_T(i, j)$	0	1	2	3	4

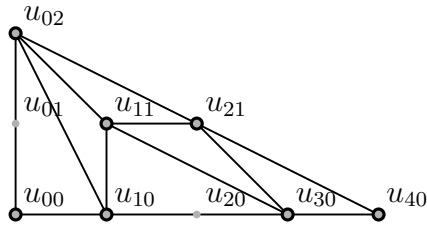
2	2				
1	0	5	1		
0	0	2	0	1	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 2 \cdot u_{11} + u_{30} &< u_{10} + 2 \cdot u_{21}
 \end{aligned}$$

# 116. Vertex: $(5, 1, 4, 0, 5, 2, 3, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{30} - 2 \cdot u_{10} - u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{30} - 2 \cdot u_{10} - u_{21} - 3 \cdot u_{02}$

2	3				
1	0	-7	1		
0	0	2	0	1	0
$c_T(i, j)$	0	1	2	3	4

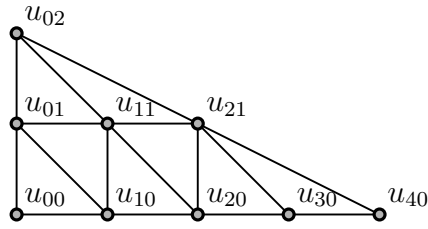
2	2				
1	0	5	1		
0	0	2	0	1	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 2 \cdot u_{11} + u_{30} &< u_{10} + 2 \cdot u_{21}
 \end{aligned}$$

# 117. Vertex: $(5, 1, 2, 3, 3, 1, 4, 3, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{20} - u_{10} - 2 \cdot u_{21} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{20} - u_{10} - 2 \cdot u_{21} - u_{01} - 2 \cdot u_{02}$

2	2
1	1 -7 2
0	0 1 1 0 0
$c_T(i, j)$	0 1 2 3 4

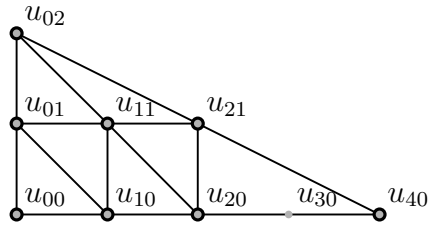
2	1
1	1 5 2
0	0 1 1 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{21} &< u_{11} + u_{30} \\
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{11} + u_{20} &< u_{10} + u_{21} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 u_{11} + u_{10} &< u_{20} + u_{01}
 \end{aligned}$$

# 118. Vertex: $(5, 2, 0, 4, 3, 1, 4, 3, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{20} - u_{10} - 2 \cdot u_{21} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{20} - u_{10} - 2 \cdot u_{21} - u_{01} - 2 \cdot u_{02}$

2	2				
1	1	-7	2		
0	0	1	1	0	0
$c_T(i, j)$	0	1	2	3	4

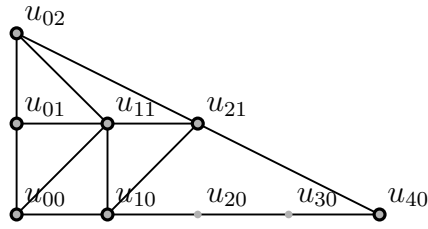
2	1				
1	1	5	2		
0	0	1	1	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{40} \\
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{11} + u_{20} &< u_{10} + u_{21} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 u_{11} + u_{10} &< u_{20} + u_{01}
 \end{aligned}$$

### 119. Vertex: $(5, 3, 0, 0, 5, 2, 5, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-7	3		
0	1	1	0	0	0
$c_T(i, j)$	0	1	2	3	4

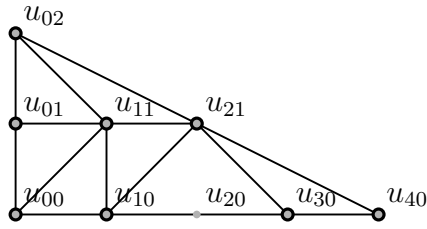
2	1				
1	0	5	3		
0	1	1	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + 3 \cdot u_{21} &< 3 \cdot u_{11} + u_{40} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{10} &< u_{00} + u_{21}
 \end{aligned}$$

## 120. Vertex: $(5, 1, 3, 0, 4, 2, 5, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-7	3		
0	1	1	0	0	0
$c_T(i, j)$	0	1	2	3	4

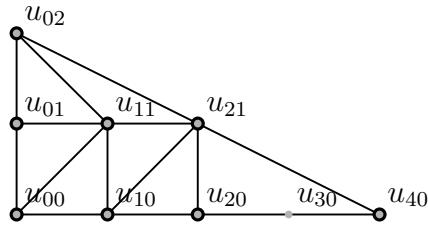
2	1				
1	0	5	3		
0	1	1	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{30} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{10} &< u_{00} + u_{21}
 \end{aligned}$$

## 121. Vertex: $(5, 2, 0, 3, 3, 2, 5, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

2	2
1	0 -7 3
0	1 1 0 0 0
$c_T(i, j)$	0 1 2 3 4

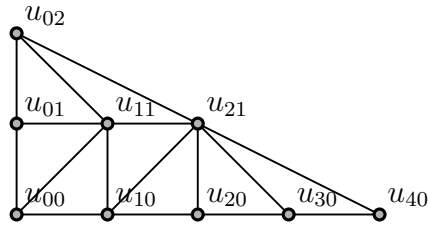
2	1
1	0 5 3
0	1 1 0 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{21} &< u_{11} + u_{20} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{10} &< u_{00} + u_{21}
 \end{aligned}$$

## 122. Vertex: $(5, 1, 2, 2, 3, 2, 5, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-7	3		
0	1	1	0	0	0
$c_T(i, j)$	0	1	2	3	4

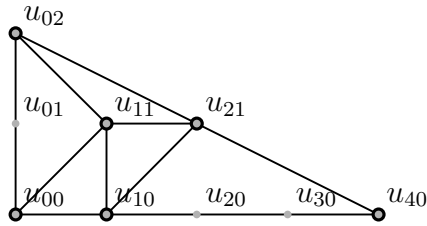
2	1				
1	0	5	3		
0	1	1	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{21} &< u_{11} + u_{20} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{11} + u_{00} &< u_{10} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{10} &< u_{00} + u_{21}
 \end{aligned}$$

### 123. Vertex: $(5, 3, 0, 0, 5, 3, 5, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-7	3		
0	1	1	0	0	0
$c_T(i, j)$	0	1	2	3	4

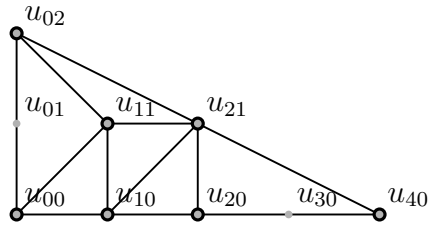
2	1				
1	0	5	3		
0	1	1	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{10} + 3 \cdot u_{21} &< 3 \cdot u_{11} + u_{40} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 u_{11} + u_{10} &< u_{00} + u_{21}
 \end{aligned}$$

## 124. Vertex: $(5, 2, 0, 3, 3, 3, 5, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-7	3		
0	1	1	0	0	0
$c_T(i, j)$	0	1	2	3	4

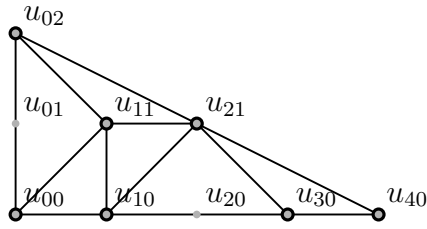
2	1				
1	0	5	3		
0	1	1	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{21} &< u_{11} + u_{20} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{11} + u_{10} &< u_{00} + u_{21} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02}
 \end{aligned}$$

## 125. Vertex: $(5, 1, 3, 0, 4, 3, 5, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-7	3		
0	1	1	0	0	0
$c_T(i, j)$	0	1	2	3	4

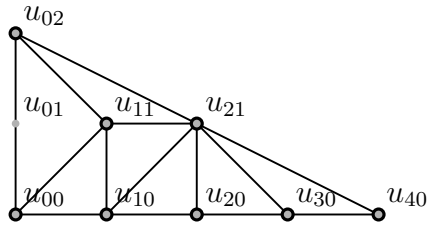
2	1				
1	0	5	3		
0	1	1	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{30} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 u_{11} + u_{10} &< u_{00} + u_{21}
 \end{aligned}$$

## 126. Vertex: $(5, 1, 2, 2, 3, 3, 5, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $7 \cdot u_{11} - u_{10} - u_{00} - 3 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-7	3		
0	1	1	0	0	0
$c_T(i, j)$	0	1	2	3	4

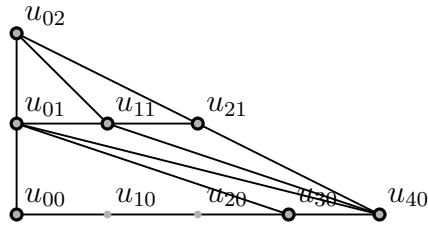
2	1				
1	0	5	3		
0	1	1	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{21} &< u_{11} + u_{20} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{11} + u_{00} &< 2 \cdot u_{10} + u_{02} \\
 u_{11} + u_{10} &< u_{00} + u_{21}
 \end{aligned}$$

## 127. Vertex: $(4, 3, 4, 0, 0, 3, 2, 6, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	4	-8	0		
0	0	0	0	0	2
$c_T(i, j)$	0	1	2	3	4

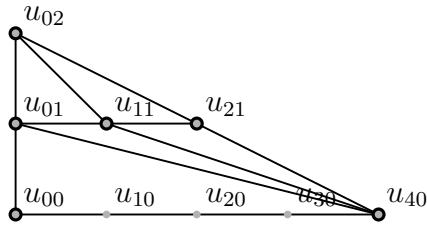
2	1				
1	4	4	0		
0	0	0	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{01} &< u_{11} + u_{30} \\
 4 \cdot u_{30} &< 3 \cdot u_{40} + u_{00} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

## 128. Vertex: $(4, 6, 0, 0, 0, 4, 2, 6, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	4	-8	0		
0	0	0	0	0	2
$c_T(i, j)$	0	1	2	3	4

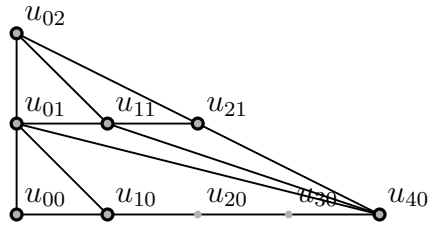
2	1				
1	4	4	0		
0	0	0	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 4 \cdot u_{01} &< 4 \cdot u_{11} + u_{00} \\
 3 \cdot u_{40} + u_{00} &< 4 \cdot u_{30} \\
 u_{40} + 3 \cdot u_{00} &< 4 \cdot u_{10} \\
 2 \cdot u_{40} + 2 \cdot u_{00} &< 4 \cdot u_{20} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

## 129. Vertex: $(4, 5, 0, 0, 4, 1, 2, 6, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	4 -8 0
0	0 0 0 0 2
$c_T(i, j)$	0 1 2 3 4

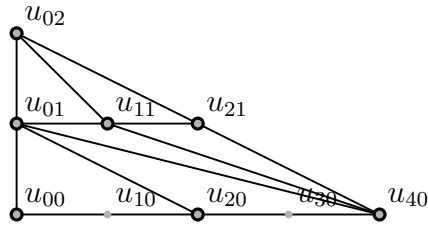
2	1
1	4 4 0
0	0 0 0 0 2
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 3 \cdot u_{01} &< 3 \cdot u_{11} + u_{10} \\
 4 \cdot u_{10} &< u_{40} + 3 \cdot u_{00} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

### 130. Vertex: $(4, 4, 0, 4, 0, 2, 2, 6, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	4	-8	0		
0	0	0	0	0	2
$c_T(i, j)$	0	1	2	3	4

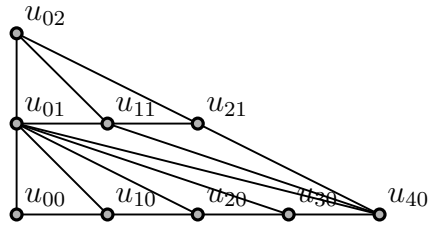
2	1				
1	4	4	0		
0	0	0	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{20} \\
 4 \cdot u_{20} &< 2 \cdot u_{40} + 2 \cdot u_{00} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

### 131. Vertex: $(4, 3, 2, 2, 2, 1, 2, 6, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	4 -8 0
0	0 0 0 0 2
$c_T(i, j)$	0 1 2 3 4

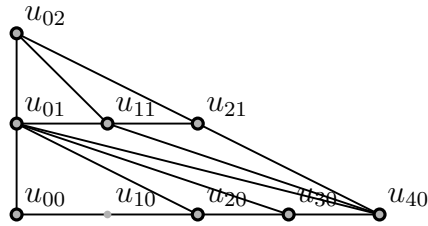
2	1
1	4 4 0
0	0 0 0 0 2
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{01} &< u_{11} + u_{30} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

### 132. Vertex: $(4, 3, 2, 3, 0, 2, 2, 6, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	4 -8 0
0	0 0 0 0 2
$c_T(i, j)$	0 1 2 3 4

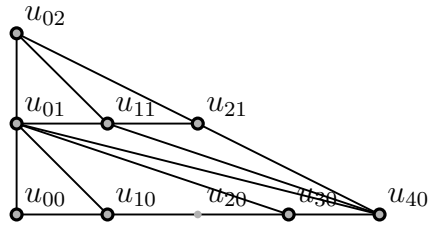
2	1
1	4 4 0
0	0 0 0 0 2
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{01} &< u_{11} + u_{30} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

### 133. Vertex: $(4, 3, 3, 0, 3, 1, 2, 6, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	4 -8 0
0	0 0 0 0 2
$c_T(i, j)$	0 1 2 3 4

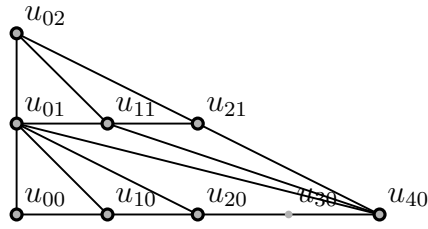
2	1
1	4 4 0
0	0 0 0 0 2
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{01} &< u_{11} + u_{30} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

### 134. Vertex: $(4, 4, 0, 3, 2, 1, 2, 6, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	4	-8	0		
0	0	0	0	0	2
$c_T(i, j)$	0	1	2	3	4

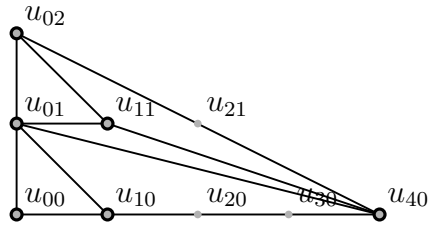
2	1				
1	4	4	0		
0	0	0	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{20} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

### 135. Vertex: $(4, 6, 0, 0, 4, 1, 0, 6, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	4 -8 0
0	0 0 0 0 2
$c_T(i, j)$	0 1 2 3 4

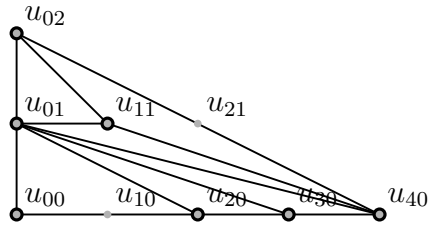
2	1
1	4 4 0
0	0 0 0 0 2
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 3 \cdot u_{01} &< 3 \cdot u_{11} + u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 4 \cdot u_{10} &< u_{40} + 3 \cdot u_{00} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 4 \cdot u_{11} &< u_{40} + 2 \cdot u_{01} + u_{02}
 \end{aligned}$$

### 136. Vertex: $(4, 4, 2, 3, 0, 2, 0, 6, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	4	-8	0		
0	0	0	0	0	2
$c_T(i, j)$	0	1	2	3	4

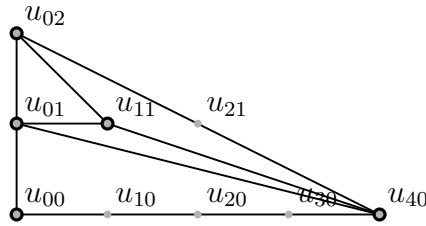
2	1				
1	4	4	0		
0	0	0	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{40} + u_{01} &< u_{11} + u_{30} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 4 \cdot u_{11} &< u_{40} + 2 \cdot u_{01} + u_{02}
 \end{aligned}$$

### 137. Vertex: $(4, 7, 0, 0, 0, 4, 0, 6, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	4 -8 0
0	0 0 0 0 2
$c_T(i, j)$	0 1 2 3 4

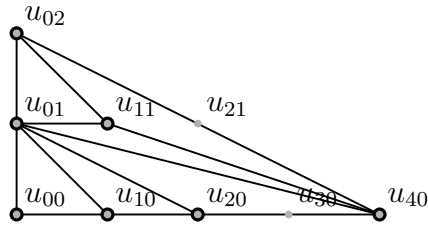
2	1
1	4 4 0
0	0 0 0 0 2
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 4 \cdot u_{01} &< 4 \cdot u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{40} + 3 \cdot u_{00} &< 4 \cdot u_{10} \\
 3 \cdot u_{40} + u_{00} &< 4 \cdot u_{30} \\
 2 \cdot u_{40} + 2 \cdot u_{00} &< 4 \cdot u_{20} \\
 4 \cdot u_{11} &< u_{40} + 2 \cdot u_{01} + u_{02}
 \end{aligned}$$

### 138. Vertex: $(4, 5, 0, 3, 2, 1, 0, 6, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	4	-8	0		
0	0	0	0	0	2
$c_T(i, j)$	0	1	2	3	4

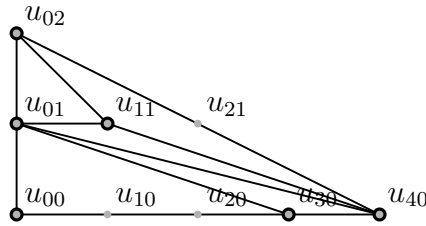
2	1				
1	4	4	0		
0	0	0	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{20} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 4 \cdot u_{11} &< u_{40} + 2 \cdot u_{01} + u_{02}
 \end{aligned}$$

### 139. Vertex: $(4, 4, 4, 0, 0, 3, 0, 6, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	4 -8 0
0	0 0 0 0 2
$c_T(i, j)$	0 1 2 3 4

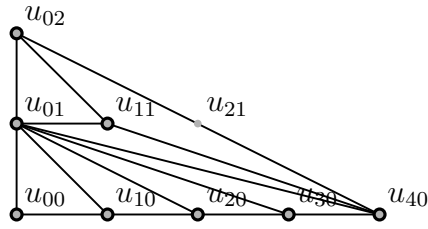
2	1
1	4 4 0
0	0 0 0 0 2
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{01} &< u_{11} + u_{30} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 4 \cdot u_{30} &< 3 \cdot u_{40} + u_{00} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 4 \cdot u_{11} &< u_{40} + 2 \cdot u_{01} + u_{02}
 \end{aligned}$$

# 140. Vertex: $(4, 4, 2, 2, 2, 1, 0, 6, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	4	-8	0		
0	0	0	0	0	2
$c_T(i, j)$	0	1	2	3	4

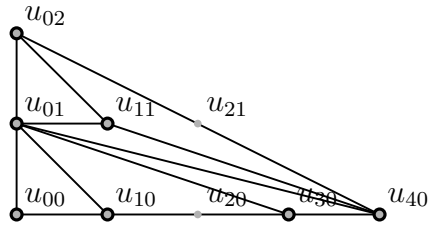
2	1				
1	4	4	0		
0	0	0	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{01} &< u_{11} + u_{30} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 4 \cdot u_{11} &< u_{40} + 2 \cdot u_{01} + u_{02}
 \end{aligned}$$

# 141. Vertex: $(4, 4, 3, 0, 3, 1, 0, 6, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	4 -8 0
0	0 0 0 0 2
$c_T(i, j)$	0 1 2 3 4

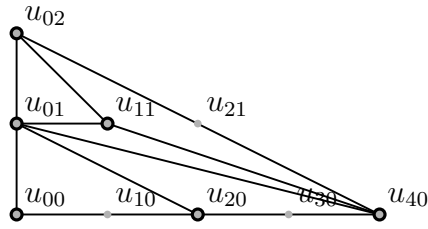
2	1
1	4 4 0
0	0 0 0 0 2
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{40} + u_{01} &< u_{11} + u_{30} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 4 \cdot u_{11} &< u_{40} + 2 \cdot u_{01} + u_{02}
 \end{aligned}$$

## 142. Vertex: $(4, 5, 0, 4, 0, 2, 0, 6, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{40} - 4 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	4	-8	0		
0	0	0	0	0	2
$c_T(i, j)$	0	1	2	3	4

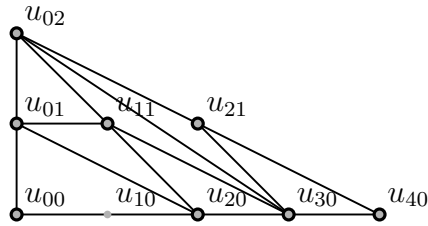
2	1				
1	4	4	0		
0	0	0	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{20} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 4 \cdot u_{20} &< 2 \cdot u_{40} + 2 \cdot u_{00} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 4 \cdot u_{11} &< u_{40} + 2 \cdot u_{01} + u_{02}
 \end{aligned}$$

### 143. Vertex: $(4, 1, 4, 4, 0, 2, 2, 4, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{20} - 2 \cdot u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{20} - 2 \cdot u_{01} - 3 \cdot u_{02}$

2	3
1	2 -8 0
0	0 0 1 2 0
$c_T(i, j)$	0 1 2 3 4

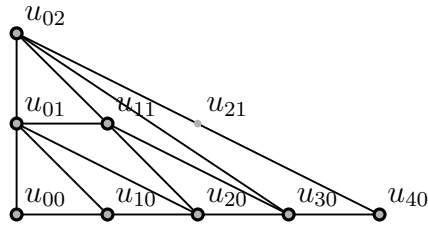
2	2
1	2 4 0
0	0 0 1 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{00} \\
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{11} + u_{20} &< u_{30} + u_{01} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02}
 \end{aligned}$$

### 144. Vertex: $(4, 2, 4, 3, 2, 1, 0, 4, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{20} - 2 \cdot u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{20} - 2 \cdot u_{01} - 3 \cdot u_{02}$

2	3
1	2 -8 0
0	0 0 1 2 0
$c_T(i, j)$	0 1 2 3 4

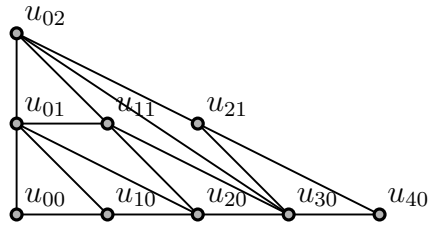
2	2
1	2 4 0
0	0 0 1 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{01} &< u_{11} + u_{10} \\
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 u_{11} + u_{20} &< u_{30} + u_{01} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02}
 \end{aligned}$$

## 145. Vertex: $(4, 1, 4, 3, 2, 1, 2, 4, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{20} - 2 \cdot u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{20} - 2 \cdot u_{01} - 3 \cdot u_{02}$

2	3				
1	2	-8	0		
0	0	0	1	2	0
$c_T(i, j)$	0	1	2	3	4

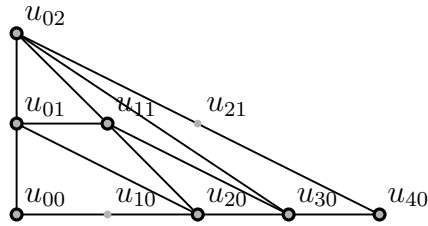
2	2				
1	2	4	0		
0	0	0	1	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{01} &< u_{11} + u_{10} \\
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{11} + u_{20} &< u_{30} + u_{01} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02}
 \end{aligned}$$

## 146. Vertex: $(4, 2, 4, 4, 0, 2, 0, 4, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{20} - 2 \cdot u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{20} - 2 \cdot u_{01} - 3 \cdot u_{02}$

2	3
1	2   -8   0
0	0   0   1   2   0
$c_T(i, j)$	0   1   2   3   4

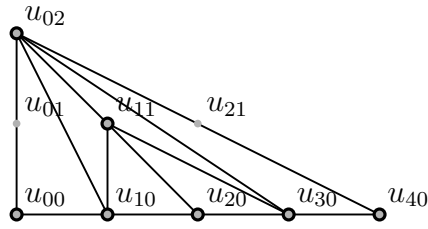
2	2
1	2   4   0
0	0   0   1   2   0
$\eta_T(i, j)$	0   1   2   3   4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{11} + u_{20} &< u_{30} + u_{01} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02}
 \end{aligned}$$

## 147. Vertex: $(4, 2, 4, 2, 4, 2, 0, 0, 6)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

2	4
1	0 -8 0
0	0 2 0 2 0
$c_T(i, j)$	0 1 2 3 4

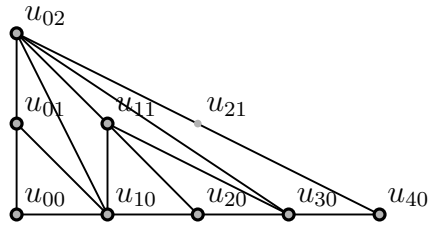
2	3
1	0 4 0
0	0 2 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02}
 \end{aligned}$$

### 148. Vertex: $(4, 2, 4, 2, 4, 1, 0, 2, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

2	4
1	0 -8 0
0	0 2 0 2 0
$c_T(i, j)$	0 1 2 3 4

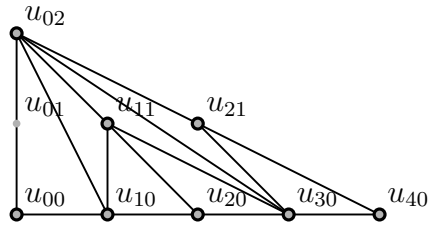
2	3
1	0 4 0
0	0 2 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02}
 \end{aligned}$$

### 149. Vertex: $(4, 1, 4, 2, 4, 2, 2, 0, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

2	4				
1	0	-8	0		
0	0	2	0	2	0
$c_T(i, j)$	0	1	2	3	4

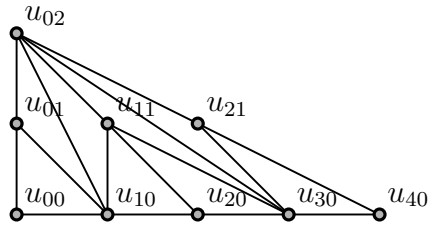
2	3				
1	0	4	0		
0	0	2	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02}
 \end{aligned}$$

### 150. Vertex: $(4, 1, 4, 2, 4, 1, 2, 2, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

2	4				
1	0	-8	0		
0	0	2	0	2	0
$c_T(i, j)$	0	1	2	3	4

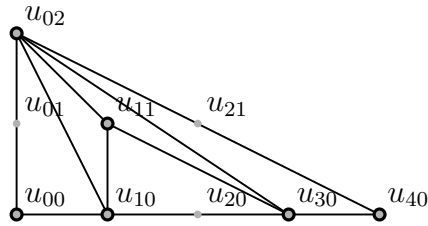
2	3				
1	0	4	0		
0	0	2	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02}
 \end{aligned}$$

# 151. Vertex: $(4, 2, 5, 0, 5, 2, 0, 0, 6)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

2	4
1	0 -8 0
0	0 2 0 2 0
$c_T(i, j)$	0 1 2 3 4

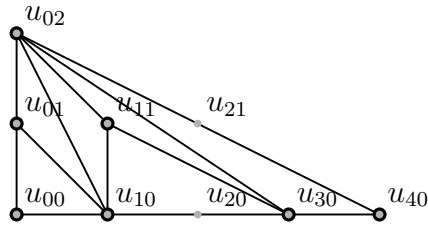
2	3
1	0 4 0
0	0 2 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 4 \cdot u_{11} &< u_{30} + u_{10} + 2 \cdot u_{02}
 \end{aligned}$$

## 152. Vertex: $(4, 2, 5, 0, 5, 1, 0, 2, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

2	4
1	0 -8 0
0	0 2 0 2 0
$c_T(i, j)$	0 1 2 3 4

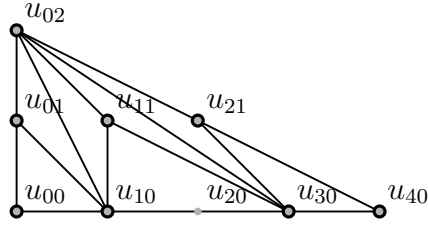
2	3
1	0 4 0
0	0 2 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 4 \cdot u_{11} &< u_{30} + u_{10} + 2 \cdot u_{02}
 \end{aligned}$$

### 153. Vertex: $(4, 1, 5, 0, 5, 1, 2, 2, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

2	4
1	0 -8 0
0	0 2 0 2 0
$c_T(i, j)$	0 1 2 3 4

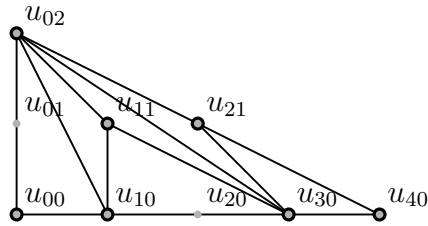
2	3
1	0 4 0
0	0 2 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 4 \cdot u_{11} &< u_{30} + u_{10} + 2 \cdot u_{02}
 \end{aligned}$$

### 154. Vertex: $(4, 1, 5, 0, 5, 2, 2, 0, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - 2 \cdot u_{10} - 4 \cdot u_{02}$

2	4
1	0 -8 0
0	0 2 0 2 0
$c_T(i, j)$	0 1 2 3 4

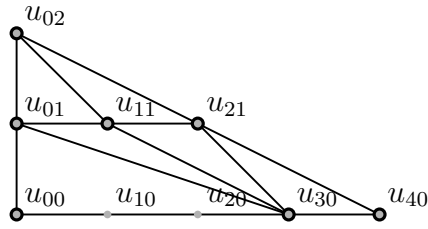
2	3
1	0 4 0
0	0 2 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 4 \cdot u_{11} &< u_{30} + u_{10} + 2 \cdot u_{02}
 \end{aligned}$$

## 155. Vertex: $(4, 1, 6, 0, 0, 3, 3, 5, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{21} - 3 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{21} - 3 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	3	-8	1		
0	0	0	0	2	0
$c_T(i, j)$	0	1	2	3	4

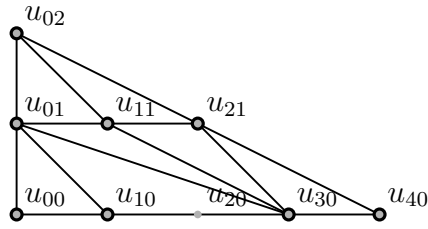
2	1				
1	3	4	1		
0	0	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 u_{30} + 3 \cdot u_{01} &< 3 \cdot u_{11} + u_{00} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

## 156. Vertex: $(4, 1, 5, 0, 3, 1, 3, 5, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{21} - 3 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{21} - 3 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	3	-8	1		
0	0	0	0	2	0
$c_T(i, j)$	0	1	2	3	4

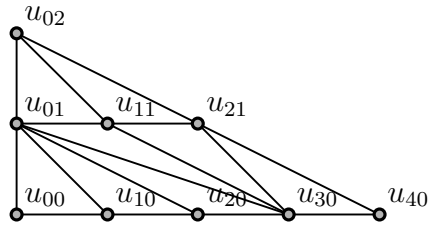
2	1				
1	3	4	1		
0	0	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{10} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

## 157. Vertex: $(4, 1, 4, 2, 2, 1, 3, 5, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{21} - 3 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{21} - 3 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	3	-8	1		
0	0	0	0	2	0
$c_T(i, j)$	0	1	2	3	4

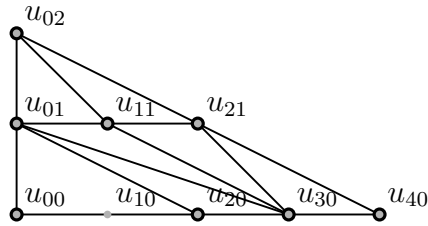
2	1				
1	3	4	1		
0	0	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} &< u_{11} + u_{20} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

## 158. Vertex: $(4, 1, 4, 3, 0, 2, 3, 5, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{21} - 3 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{30} - u_{21} - 3 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	3 -8 1
0	0 0 0 2 0
$c_T(i, j)$	0 1 2 3 4

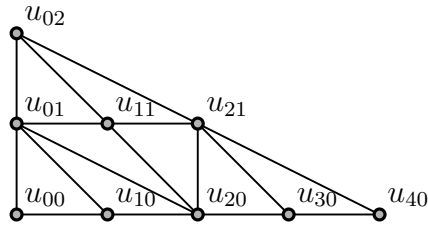
2	1
1	3 4 1
0	0 0 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} &< u_{11} + u_{20} \\
 u_{30} + u_{21} &< u_{11} + u_{40} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{11} + u_{21} &< u_{30} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

### 159. Vertex: $(4, 1, 2, 4, 2, 1, 4, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{20} - 2 \cdot u_{21} - 2 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{20} - 2 \cdot u_{21} - 2 \cdot u_{01} - 2 \cdot u_{02}$

2	2
1	2 -8 2
0	0 0 2 0 0
$c_T(i, j)$	0 1 2 3 4

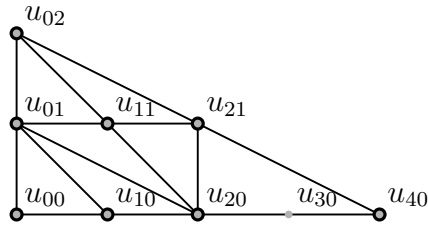
2	1
1	2 4 2
0	0 0 2 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{21} &< u_{11} + u_{30} \\
 u_{20} + u_{01} &< u_{11} + u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

**160. Vertex:**  $(4, 2, 0, 5, 2, 1, 4, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{20} - 2 \cdot u_{21} - 2 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{20} - 2 \cdot u_{21} - 2 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	2	-8	2		
0	0	0	2	0	0
$c_T(i, j)$	0	1	2	3	4

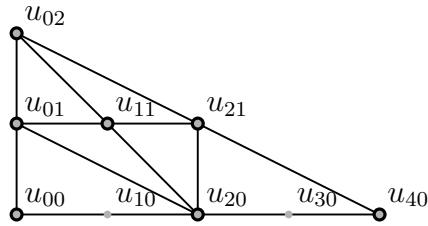
2	1				
1	2	4	2		
0	0	0	2	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{40} \\
 u_{20} + u_{01} &< u_{11} + u_{10} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

# 161. Vertex: $(4, 2, 0, 6, 0, 2, 4, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{20} - 2 \cdot u_{21} - 2 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{20} - 2 \cdot u_{21} - 2 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	2	-8	2		
0	0	0	2	0	0
$c_T(i, j)$	0	1	2	3	4

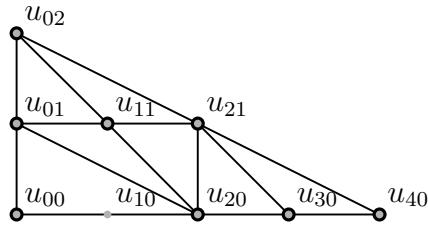
2	1				
1	2	4	2		
0	0	0	2	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{00} \\
 u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{40} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

## 162. Vertex: $(4, 1, 2, 5, 0, 2, 4, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{20} - 2 \cdot u_{21} - 2 \cdot u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{20} - 2 \cdot u_{21} - 2 \cdot u_{01} - 2 \cdot u_{02}$

2	2				
1	2	-8	2		
0	0	0	2	0	0
$c_T(i, j)$	0	1	2	3	4

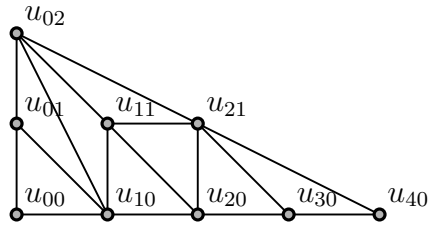
2	1				
1	2	4	2		
0	0	0	2	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{00} \\
 u_{20} + u_{21} &< u_{11} + u_{30} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

### 163. Vertex: $(4, 1, 2, 3, 4, 1, 4, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - u_{20} - 2 \cdot u_{10} - 2 \cdot u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - u_{20} - 2 \cdot u_{10} - 2 \cdot u_{21} - 3 \cdot u_{02}$

2	3				
1	0	-8	2		
0	0	2	1	0	0
$c_T(i, j)$	0	1	2	3	4

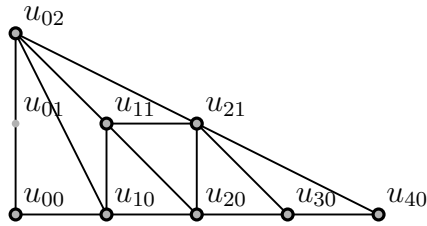
2	2				
1	0	4	2		
0	0	2	1	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{21} &< u_{11} + u_{30} \\
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{11} + u_{20} &< u_{10} + u_{21} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02}
 \end{aligned}$$

### 164. Vertex: $(4, 1, 2, 3, 4, 2, 4, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - u_{20} - 2 \cdot u_{10} - 2 \cdot u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - u_{20} - 2 \cdot u_{10} - 2 \cdot u_{21} - 3 \cdot u_{02}$

2	3				
1	0	-8	2		
0	0	2	1	0	0
$c_T(i, j)$	0	1	2	3	4

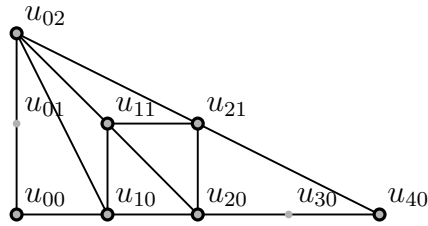
2	2				
1	0	4	2		
0	0	2	1	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + u_{21} &< u_{11} + u_{30} \\
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{11} + u_{20} &< u_{10} + u_{21} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02}
 \end{aligned}$$

## 165. Vertex: $(4, 2, 0, 4, 4, 2, 4, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - u_{20} - 2 \cdot u_{10} - 2 \cdot u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - u_{20} - 2 \cdot u_{10} - 2 \cdot u_{21} - 3 \cdot u_{02}$

2	3				
1	0	-8	2		
0	0	2	1	0	0
$c_T(i, j)$	0	1	2	3	4

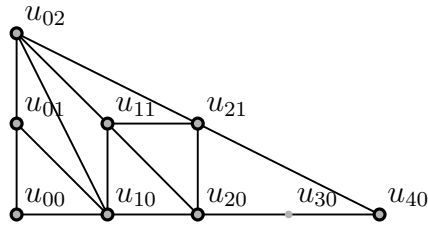
2	2				
1	0	4	2		
0	0	2	1	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{40} \\
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{11} + u_{20} &< u_{10} + u_{21} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02}
 \end{aligned}$$

## 166. Vertex: $(4, 2, 0, 4, 4, 1, 4, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - u_{20} - 2 \cdot u_{10} - 2 \cdot u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - u_{20} - 2 \cdot u_{10} - 2 \cdot u_{21} - 3 \cdot u_{02}$

2	3				
1	0	-8	2		
0	0	2	1	0	0
$c_T(i, j)$	0	1	2	3	4

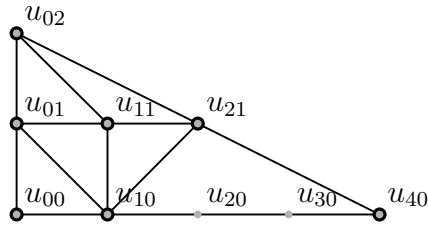
2	2				
1	0	4	2		
0	0	2	1	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{40} \\
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{11} + u_{20} &< u_{10} + u_{21} \\
 4 \cdot u_{11} &< 2 \cdot u_{20} + 2 \cdot u_{02}
 \end{aligned}$$

## 167. Vertex: $(4, 3, 0, 0, 6, 1, 5, 3, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{10} - 3 \cdot u_{21} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{10} - 3 \cdot u_{21} - u_{01} - 2 \cdot u_{02}$

2	2
1	1 -8 3
0	0 2 0 0 0
$c_T(i, j)$	0 1 2 3 4

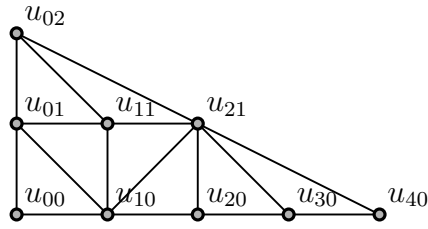
2	1
1	1 4 3
0	0 2 0 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 u_{10} + 3 \cdot u_{21} &< 3 \cdot u_{11} + u_{40} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

## 168. Vertex: $(4, 1, 2, 2, 4, 1, 5, 3, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{10} - 3 \cdot u_{21} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{10} - 3 \cdot u_{21} - u_{01} - 2 \cdot u_{02}$

2	2				
1	1	-8	3		
0	0	2	0	0	0
$c_T(i, j)$	0	1	2	3	4

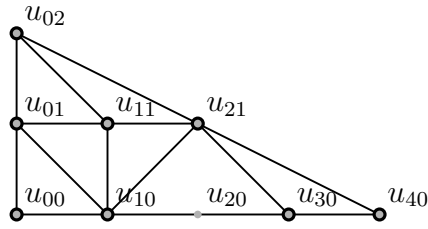
2	1				
1	1	4	3		
0	0	2	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{21} &< u_{11} + u_{20} \\
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

### 169. Vertex: $(4, 1, 3, 0, 5, 1, 5, 3, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{10} - 3 \cdot u_{21} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{10} - 3 \cdot u_{21} - u_{01} - 2 \cdot u_{02}$

2	2				
1	1	-8	3		
0	0	2	0	0	0
$c_T(i, j)$	0	1	2	3	4

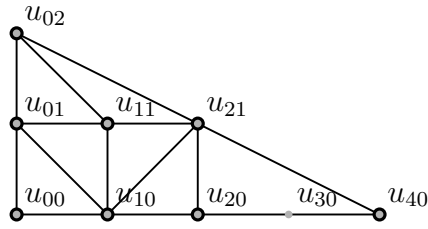
2	1				
1	1	4	3		
0	0	2	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{30} \\
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

# 170. Vertex: $(4, 2, 0, 3, 4, 1, 5, 3, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{10} - 3 \cdot u_{21} - u_{01} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{10} - 3 \cdot u_{21} - u_{01} - 2 \cdot u_{02}$

2	2				
1	1	-8	3		
0	0	2	0	0	0
$c_T(i, j)$	0	1	2	3	4

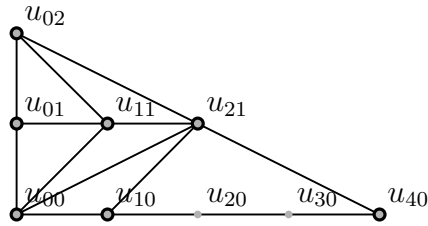
2	1				
1	1	4	3		
0	0	2	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{21} &< u_{11} + u_{20} \\
 u_{10} + u_{01} &< u_{11} + u_{00} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{11} + u_{01} &< u_{10} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

# 171. Vertex: $(4, 3, 0, 0, 4, 3, 6, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

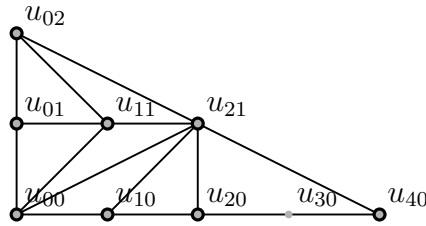
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{21} &< u_{11} + u_{10} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 4 \cdot u_{10} &< u_{40} + 3 \cdot u_{00} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

## 172. Vertex: $(4, 2, 0, 3, 2, 3, 6, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

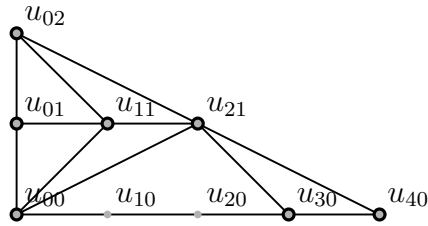
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{21} &< u_{11} + u_{10} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

### 173. Vertex: $(4, 1, 4, 0, 0, 5, 6, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2
1	0 -8 4
0	2 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

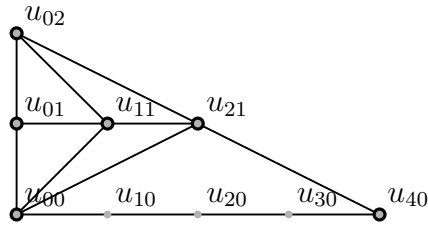
2	1
1	0 4 4
0	2 0 0 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 3 \cdot u_{21} &< 3 \cdot u_{11} + u_{30} \\
 4 \cdot u_{30} &< 3 \cdot u_{40} + u_{00} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

**174. Vertex:**  $(4, 4, 0, 0, 0, 6, 6, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

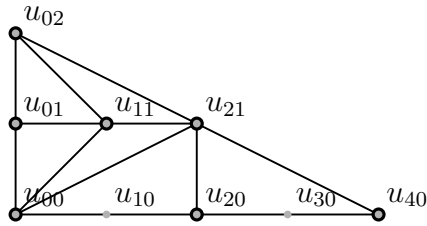
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 4 \cdot u_{21} &< 4 \cdot u_{11} + u_{40} \\
 u_{40} + 3 \cdot u_{00} &< 4 \cdot u_{10} \\
 3 \cdot u_{40} + u_{00} &< 4 \cdot u_{30} \\
 2 \cdot u_{40} + 2 \cdot u_{00} &< 4 \cdot u_{20} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

# 175. Vertex: $(4, 2, 0, 4, 0, 4, 6, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

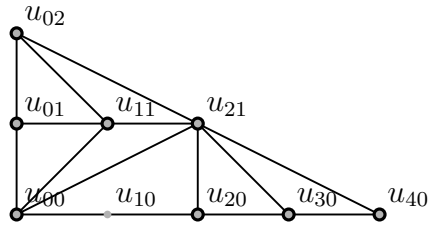
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{20} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 4 \cdot u_{20} &< 2 \cdot u_{40} + 2 \cdot u_{00} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

**176. Vertex:**  $(4, 1, 2, 3, 0, 4, 6, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

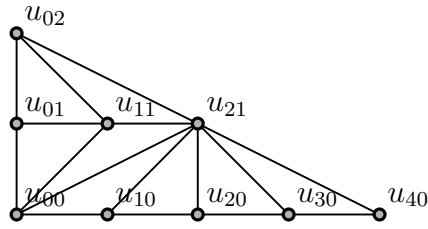
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{20} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

# 177. Vertex: $(4, 1, 2, 2, 2, 3, 6, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

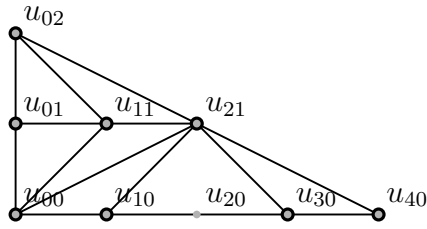
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{21} &< u_{11} + u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

# 178. Vertex: $(4, 1, 3, 0, 3, 3, 6, 2, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

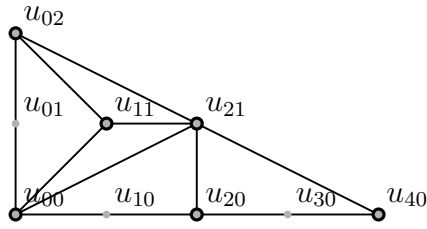
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{21} &< u_{11} + u_{10} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 4 \cdot u_{11} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

**179. Vertex:**  $(4, 2, 0, 4, 0, 5, 6, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

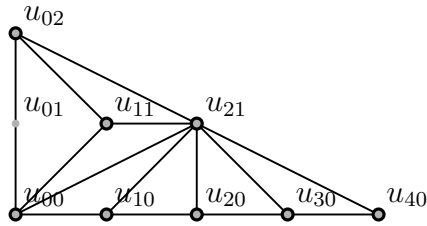
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{20} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 4 \cdot u_{20} &< 2 \cdot u_{40} + 2 \cdot u_{00} \\
 4 \cdot u_{11} &< u_{00} + 2 \cdot u_{21} + u_{02}
 \end{aligned}$$

**180. Vertex:**  $(4, 1, 2, 2, 2, 4, 6, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

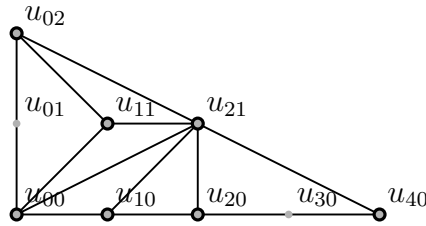
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{21} &< u_{11} + u_{10} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 4 \cdot u_{11} &< u_{00} + 2 \cdot u_{21} + u_{02}
 \end{aligned}$$

# 181. Vertex: $(4, 2, 0, 3, 2, 4, 6, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

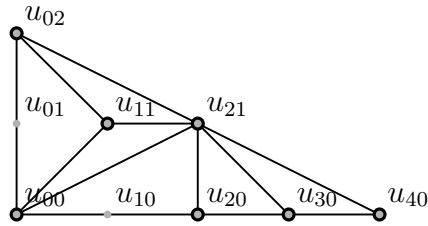
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{21} &< u_{11} + u_{10} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 4 \cdot u_{11} &< u_{00} + 2 \cdot u_{21} + u_{02}
 \end{aligned}$$

## 182. Vertex: $(4, 1, 2, 3, 0, 5, 6, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

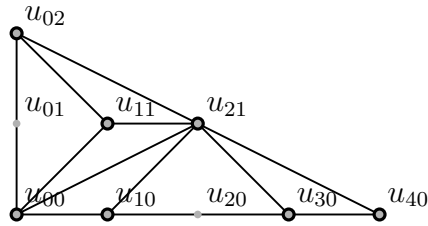
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{20} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 4 \cdot u_{11} &< u_{00} + 2 \cdot u_{21} + u_{02}
 \end{aligned}$$

### 183. Vertex: $(4, 1, 3, 0, 3, 4, 6, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

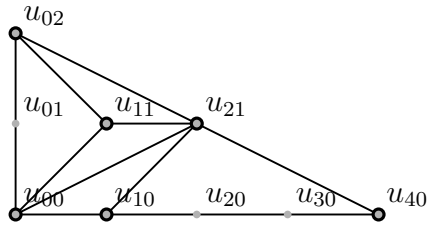
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{21} &< u_{11} + u_{10} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 4 \cdot u_{11} &< u_{00} + 2 \cdot u_{21} + u_{02}
 \end{aligned}$$

### 184. Vertex: $(4, 3, 0, 0, 4, 4, 6, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

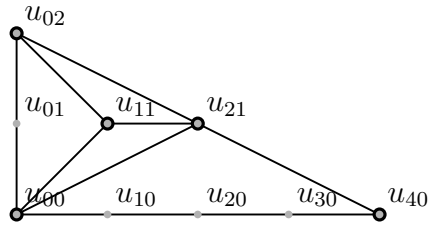
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{21} &< u_{11} + u_{10} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 4 \cdot u_{10} &< u_{40} + 3 \cdot u_{00} \\
 4 \cdot u_{11} &< u_{00} + 2 \cdot u_{21} + u_{02}
 \end{aligned}$$

### 185. Vertex: $(4, 4, 0, 0, 0, 7, 6, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

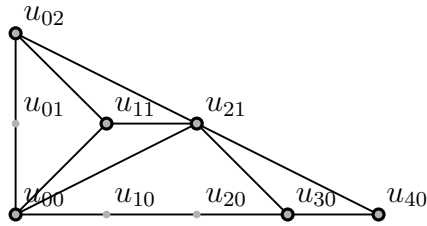
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 4 \cdot u_{21} &< 4 \cdot u_{11} + u_{40} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{40} + 2 \cdot u_{00} &< 4 \cdot u_{20} \\
 u_{40} + 3 \cdot u_{00} &< 4 \cdot u_{10} \\
 3 \cdot u_{40} + u_{00} &< 4 \cdot u_{30} \\
 4 \cdot u_{11} &< u_{00} + 2 \cdot u_{21} + u_{02}
 \end{aligned}$$

**186. Vertex:**  $(4, 1, 4, 0, 0, 6, 6, 0, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

The generic valuation of the j-invariant is:  $8 \cdot u_{11} - 2 \cdot u_{00} - 4 \cdot u_{21} - 2 \cdot u_{02}$

2	2				
1	0	-8	4		
0	2	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

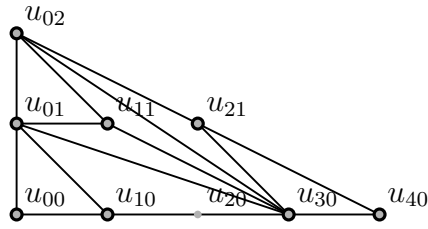
2	1				
1	0	4	4		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{00} + 3 \cdot u_{21} &< 3 \cdot u_{11} + u_{30} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 4 \cdot u_{30} &< 3 \cdot u_{40} + u_{00} \\
 4 \cdot u_{11} &< u_{00} + 2 \cdot u_{21} + u_{02}
 \end{aligned}$$

# 187. Vertex: $(3, 1, 6, 0, 3, 1, 2, 5, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

2	3
1	3 -9 0
0	0 0 0 3 0
$c_T(i, j)$	0 1 2 3 4

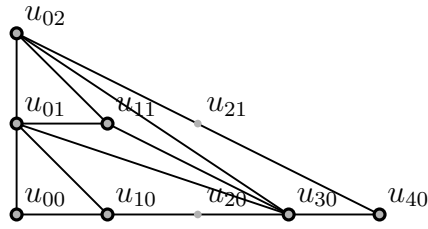
2	2
1	3 3 0
0	0 0 0 3 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{10} \\
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 3 \cdot u_{11} &< u_{30} + u_{01} + u_{02}
 \end{aligned}$$

### 188. Vertex: $(3, 2, 6, 0, 3, 1, 0, 5, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

2	3				
1	3	-9	0		
0	0	0	0	3	0
$c_T(i, j)$	0	1	2	3	4

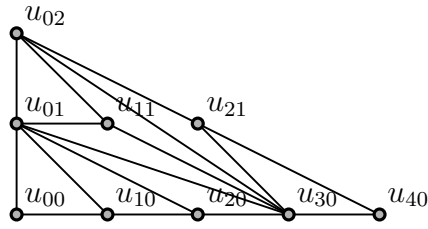
2	2				
1	3	3	0		
0	0	0	0	3	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + 2 \cdot u_{01} &< 2 \cdot u_{11} + u_{10} \\
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 3 \cdot u_{11} &< u_{30} + u_{01} + u_{02}
 \end{aligned}$$

### 189. Vertex: $(3, 1, 5, 2, 2, 1, 2, 5, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

2	3				
1	3	-9	0		
0	0	0	0	3	0
$c_T(i, j)$	0	1	2	3	4

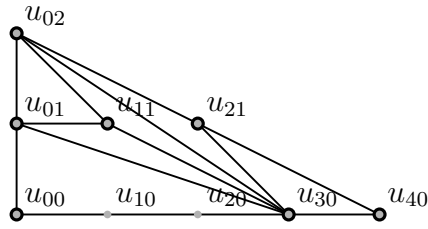
2	2				
1	3	3	0		
0	0	0	0	3	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} &< u_{11} + u_{20} \\
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 3 \cdot u_{11} &< u_{30} + u_{01} + u_{02}
 \end{aligned}$$

### 190. Vertex: $(3, 1, 7, 0, 0, 3, 2, 5, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

2	3
1	3   -9   0
0	0   0   0   3   0
$c_T(i, j)$	0   1   2   3   4

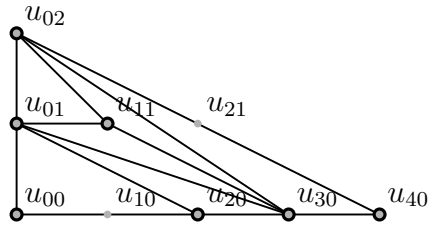
2	2
1	3   3   0
0	0   0   0   3   0
$\eta_T(i, j)$	0   1   2   3   4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + 3 \cdot u_{01} &< 3 \cdot u_{11} + u_{00} \\
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 3 \cdot u_{11} &< u_{30} + u_{01} + u_{02}
 \end{aligned}$$

# 191. Vertex: $(3, 2, 5, 3, 0, 2, 0, 5, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

2	3
1	3   -9   0
0	0   0   0   3   0
$c_T(i, j)$	0   1   2   3   4

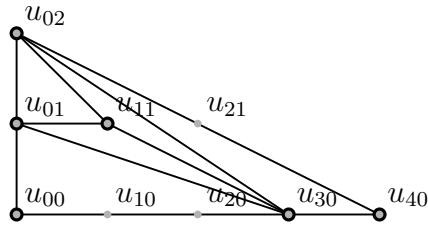
2	2
1	3   3   0
0	0   0   0   3   0
$\eta_T(i, j)$	0   1   2   3   4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} &< u_{11} + u_{20} \\
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 3 \cdot u_{11} &< u_{30} + u_{01} + u_{02}
 \end{aligned}$$

## 192. Vertex: $(3, 2, 7, 0, 0, 3, 0, 5, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

2	3
1	3 -9 0
0	0 0 0 3 0
$c_T(i, j)$	0 1 2 3 4

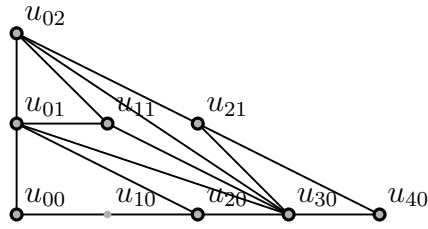
2	2
1	3 3 0
0	0 0 0 3 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{30} + 3 \cdot u_{01} &< 3 \cdot u_{11} + u_{00} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 3 \cdot u_{11} &< u_{30} + u_{01} + u_{02}
 \end{aligned}$$

### 193. Vertex: $(3, 1, 5, 3, 0, 2, 2, 5, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

2	3				
1	3	-9	0		
0	0	0	0	3	0
$c_T(i, j)$	0	1	2	3	4

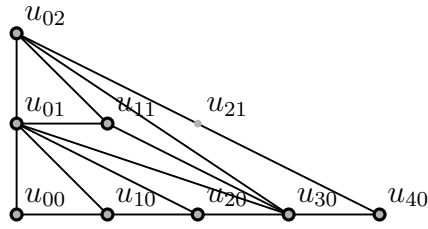
2	2				
1	3	3	0		
0	0	0	0	3	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} &< u_{11} + u_{20} \\
 u_{30} + u_{02} &< u_{11} + u_{21} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 3 \cdot u_{11} &< u_{30} + u_{01} + u_{02}
 \end{aligned}$$

### 194. Vertex: $(3, 2, 5, 2, 2, 1, 0, 5, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{30} - 3 \cdot u_{01} - 3 \cdot u_{02}$

2	3
1	3   -9   0
0	0   0   0   3   0
$c_T(i, j)$	0   1   2   3   4

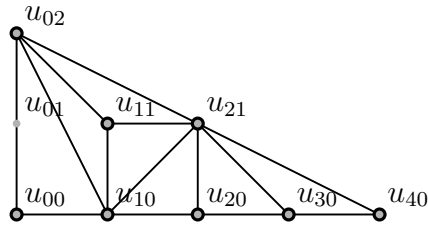
2	2
1	3   3   0
0	0   0   0   3   0
$\eta_T(i, j)$	0   1   2   3   4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{02} &< 2 \cdot u_{11} + u_{40} \\
 u_{30} + u_{01} &< u_{11} + u_{20} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 3 \cdot u_{11} &< u_{30} + u_{01} + u_{02}
 \end{aligned}$$

### 195. Vertex: $(3, 1, 2, 2, 5, 2, 5, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

2	3				
1	0	-9	3		
0	0	3	0	0	0
$c_T(i, j)$	0	1	2	3	4

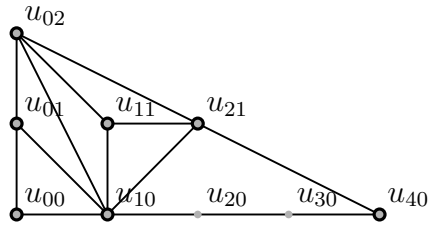
2	2				
1	0	3	3		
0	0	3	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{21} &< u_{11} + u_{20} \\
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 3 \cdot u_{11} &< u_{10} + u_{21} + u_{02}
 \end{aligned}$$

**196. Vertex:**  $(3, 3, 0, 0, 7, 1, 5, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

2	3
1	0 -9 3
0	0 3 0 0 0
$c_T(i, j)$	0 1 2 3 4

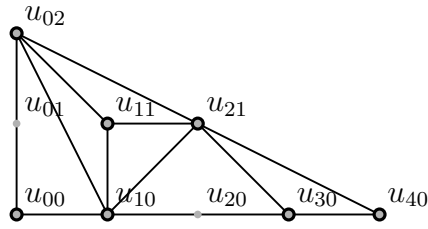
2	2
1	0 3 3
0	0 3 0 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 u_{10} + 3 \cdot u_{21} &< 3 \cdot u_{11} + u_{40} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 3 \cdot u_{11} &< u_{10} + u_{21} + u_{02}
 \end{aligned}$$

# 197. Vertex: $(3, 1, 3, 0, 6, 2, 5, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

2	3
1	0 -9 3
0	0 3 0 0 0
$c_T(i, j)$	0 1 2 3 4

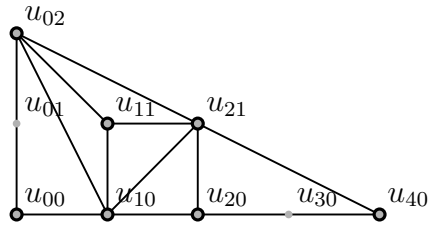
2	2
1	0 3 3
0	0 3 0 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{30} \\
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 3 \cdot u_{11} &< u_{10} + u_{21} + u_{02}
 \end{aligned}$$

**198. Vertex:**  $(3, 2, 0, 3, 5, 2, 5, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

2	3				
1	0	-9	3		
0	0	3	0	0	0
$c_T(i, j)$	0	1	2	3	4

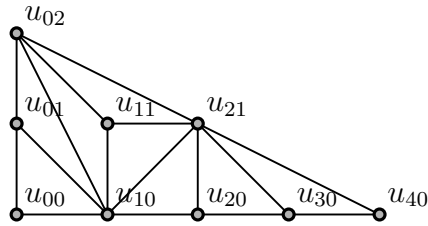
2	2				
1	0	3	3		
0	0	3	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{10} + u_{21} &< u_{11} + u_{20} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 3 \cdot u_{11} &< u_{10} + u_{21} + u_{02}
 \end{aligned}$$

### 199. Vertex: $(3, 1, 2, 2, 5, 1, 5, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

2	3				
1	0	-9	3		
0	0	3	0	0	0
$c_T(i, j)$	0	1	2	3	4

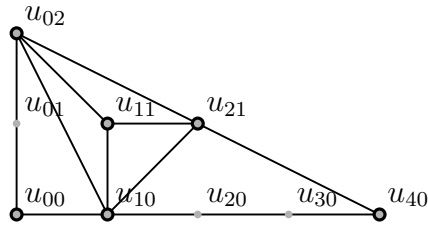
2	2				
1	0	3	3		
0	0	3	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 u_{10} + u_{21} &< u_{11} + u_{20} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 3 \cdot u_{11} &< u_{10} + u_{21} + u_{02}
 \end{aligned}$$

**200. Vertex:**  $(3, 3, 0, 0, 7, 2, 5, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

2	3				
1	0	-9	3		
0	0	3	0	0	0
$c_T(i, j)$	0	1	2	3	4

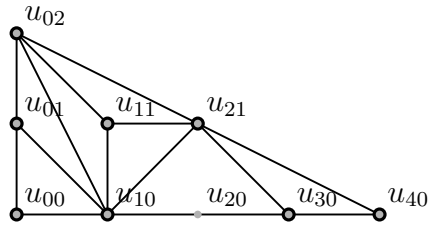
2	2				
1	0	3	3		
0	0	3	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{10} + u_{02} &< 2 \cdot u_{11} + u_{00} \\
 u_{10} + 3 \cdot u_{21} &< 3 \cdot u_{11} + u_{40} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 3 \cdot u_{11} &< u_{10} + u_{21} + u_{02}
 \end{aligned}$$

## 201. Vertex: $(3, 1, 3, 0, 6, 1, 5, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

2	3
1	0 -9 3
0	0 3 0 0 0
$c_T(i, j)$	0 1 2 3 4

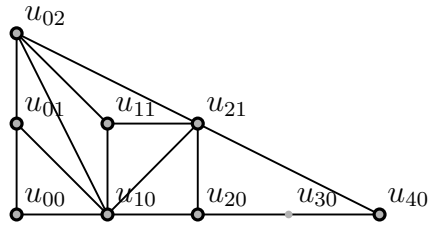
2	2
1	0 3 3
0	0 3 0 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 u_{10} + 2 \cdot u_{21} &< 2 \cdot u_{11} + u_{30} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 3 \cdot u_{11} &< u_{10} + u_{21} + u_{02}
 \end{aligned}$$

## 202. Vertex: $(3, 2, 0, 3, 5, 1, 5, 2, 3)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

The generic valuation of the j-invariant is:  $9 \cdot u_{11} - 3 \cdot u_{10} - 3 \cdot u_{21} - 3 \cdot u_{02}$

2	3
1	0 -9 3
0	0 3 0 0 0
$c_T(i, j)$	0 1 2 3 4

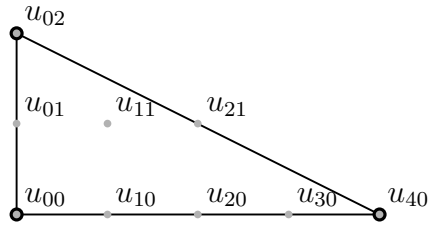
2	2
1	0 3 3
0	0 3 0 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{02} &< u_{11} + u_{01} \\
 u_{10} + u_{21} &< u_{11} + u_{20} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 3 \cdot u_{11} &< u_{10} + u_{21} + u_{02}
 \end{aligned}$$

### 203. Vertex: $(0, 8, 0, 0, 0, 8, 0, 0, 8)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{40} + 3 \cdot u_{00} + 6 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

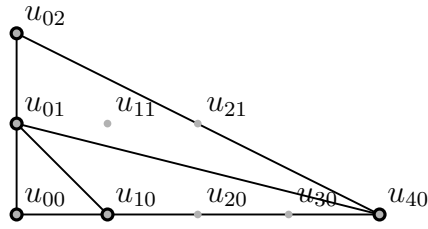
2	5
1	0 0 0
0	3 0 0 0 3
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{40} + 2 \cdot u_{00} + 4 \cdot u_{02} &< 8 \cdot u_{11} \\
 4 \cdot u_{40} + 4 \cdot u_{00} &< 8 \cdot u_{20} \\
 6 \cdot u_{40} + 2 \cdot u_{00} &< 8 \cdot u_{30} \\
 4 \cdot u_{40} + 4 \cdot u_{02} &< 8 \cdot u_{21} \\
 4 \cdot u_{00} + 4 \cdot u_{02} &< 8 \cdot u_{01} \\
 2 \cdot u_{40} + 6 \cdot u_{00} &< 8 \cdot u_{10}
 \end{aligned}$$

**204. Vertex:**  $(0, 7, 0, 0, 4, 1, 0, 8, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{40} + 6 \cdot u_{01} + 3 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

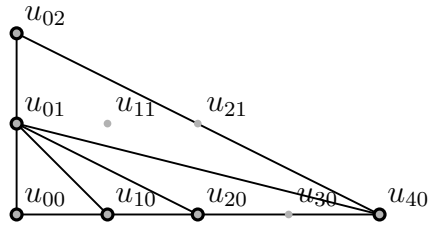
2	2				
1	6	0	0		
0	0	0	0	0	3
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{01} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{40} + 2 \cdot u_{02} &< 4 \cdot u_{21} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 u_{40} + 6 \cdot u_{01} &< 4 \cdot u_{10} + 3 \cdot u_{02} \\
 4 \cdot u_{10} &< u_{40} + 3 \cdot u_{00} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30}
 \end{aligned}$$

## 205. Vertex: $(0, 6, 0, 3, 2, 1, 0, 8, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{40} + 6 \cdot u_{01} + 3 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

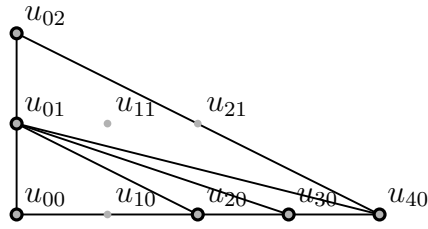
2	2				
1	6	0	0		
0	0	0	0	0	3
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{01} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{40} + 4 \cdot u_{01} &< 4 \cdot u_{20} + 2 \cdot u_{02} \\
 2 \cdot u_{40} + 2 \cdot u_{02} &< 4 \cdot u_{21} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{10} &< u_{20} + u_{00}
 \end{aligned}$$

**206. Vertex:**  $(0, 5, 2, 3, 0, 2, 0, 8, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{40} + 6 \cdot u_{01} + 3 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

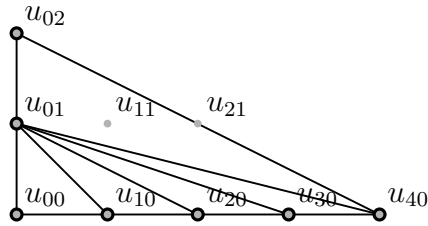
2	2				
1	6	0	0		
0	0	0	0	0	3
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{01} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{40} + 2 \cdot u_{02} &< 4 \cdot u_{21} \\
 3 \cdot u_{40} + 2 \cdot u_{01} &< 4 \cdot u_{30} + u_{02} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 2 \cdot u_{30} &< u_{40} + u_{20}
 \end{aligned}$$

## 207. Vertex: $(0, 5, 2, 2, 2, 1, 0, 8, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{40} + 6 \cdot u_{01} + 3 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

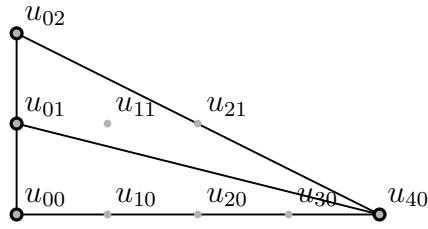
2	2				
1	6	0	0		
0	0	0	0	0	3
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{01} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{40} + 2 \cdot u_{02} &< 4 \cdot u_{21} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 3 \cdot u_{40} + 2 \cdot u_{01} &< 4 \cdot u_{30} + u_{02} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{20} &< u_{30} + u_{10}
 \end{aligned}$$

**208. Vertex:**  $(0, 8, 0, 0, 0, 4, 0, 8, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{40} + 6 \cdot u_{01} + 3 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

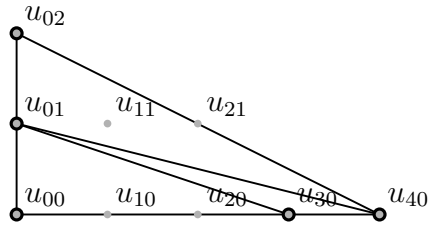
2	2				
1	6	0	0		
0	0	0	0	0	3
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{01} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{40} + 2 \cdot u_{02} &< 4 \cdot u_{21} \\
 u_{40} + 3 \cdot u_{00} &< 4 \cdot u_{10} \\
 8 \cdot u_{01} &< 4 \cdot u_{00} + 4 \cdot u_{02} \\
 3 \cdot u_{40} + u_{00} &< 4 \cdot u_{30} \\
 2 \cdot u_{40} + 2 \cdot u_{00} &< 4 \cdot u_{20}
 \end{aligned}$$

**209. Vertex:**  $(0, 5, 4, 0, 0, 3, 0, 8, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{40} + 6 \cdot u_{01} + 3 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

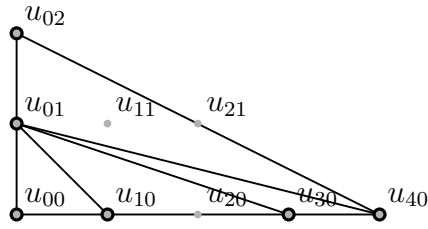
2	2
1	6 0 0
0	0 0 0 0 3
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{01} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{40} + 2 \cdot u_{02} &< 4 \cdot u_{21} \\
 3 \cdot u_{40} + 2 \cdot u_{01} &< 4 \cdot u_{30} + u_{02} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 4 \cdot u_{30} &< 3 \cdot u_{40} + u_{00} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10}
 \end{aligned}$$

**210. Vertex:**  $(0, 5, 3, 0, 3, 1, 0, 8, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{40} + 6 \cdot u_{01} + 3 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

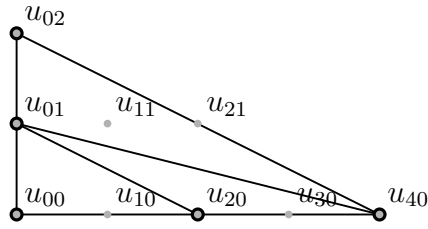
2	2				
1	6	0	0		
0	0	0	0	0	3
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{01} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{40} + 2 \cdot u_{02} &< 4 \cdot u_{21} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 3 \cdot u_{40} + 2 \cdot u_{01} &< 4 \cdot u_{30} + u_{02} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00}
 \end{aligned}$$

**211. Vertex:**  $(0, 6, 0, 4, 0, 2, 0, 8, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{40} + 6 \cdot u_{01} + 3 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

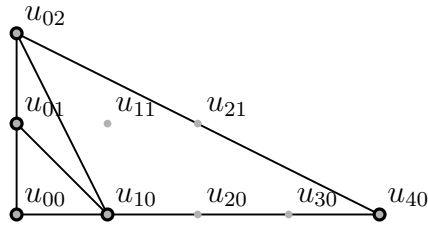
2	2				
1	6	0	0		
0	0	0	0	0	3
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{01} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{40} + 4 \cdot u_{01} &< 4 \cdot u_{20} + 2 \cdot u_{02} \\
 2 \cdot u_{40} + 2 \cdot u_{02} &< 4 \cdot u_{21} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 4 \cdot u_{20} &< 2 \cdot u_{40} + 2 \cdot u_{00}
 \end{aligned}$$

## 212. Vertex: $(0, 6, 0, 0, 8, 1, 0, 2, 7)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{40} + 4 \cdot u_{10} + 6 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

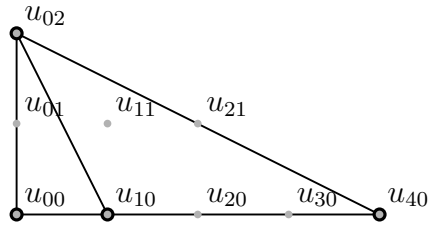
2	5
1	0 0 0
0	0 4 0 0 2
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{10} + 3 \cdot u_{02} &< 6 \cdot u_{11} \\
 2 \cdot u_{40} + 4 \cdot u_{10} &< 6 \cdot u_{20} \\
 4 \cdot u_{10} + 3 \cdot u_{02} &< u_{40} + 6 \cdot u_{01} \\
 4 \cdot u_{40} + 2 \cdot u_{10} &< 6 \cdot u_{30} \\
 3 \cdot u_{40} + 3 \cdot u_{02} &< 6 \cdot u_{21} \\
 2 \cdot u_{01} &< u_{00} + u_{02}
 \end{aligned}$$

### 213. Vertex: $(0, 6, 0, 0, 8, 2, 0, 0, 8)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{40} + 4 \cdot u_{10} + 6 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

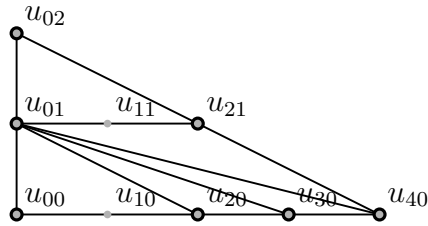
2	5				
1	0	0	0		
0	0	4	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{40} + 2 \cdot u_{10} + 3 \cdot u_{02} &< 6 \cdot u_{11} \\
 2 \cdot u_{40} + 4 \cdot u_{10} &< 6 \cdot u_{20} \\
 8 \cdot u_{10} &< 2 \cdot u_{40} + 6 \cdot u_{00} \\
 4 \cdot u_{40} + 2 \cdot u_{10} &< 6 \cdot u_{30} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 3 \cdot u_{40} + 3 \cdot u_{02} &< 6 \cdot u_{21}
 \end{aligned}$$

## 214. Vertex: $(0, 3, 2, 3, 0, 2, 4, 8, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{40} + 2 \cdot u_{21} + 6 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

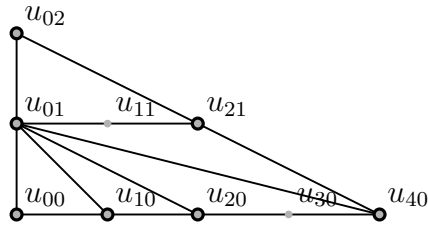
2	1				
1	6	0	2		
0	0	0	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 2 \cdot u_{40} + u_{01} &< 2 \cdot u_{30} + u_{21} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 4 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{02}
 \end{aligned}$$

## 215. Vertex: $(0, 4, 0, 3, 2, 1, 4, 8, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{40} + 2 \cdot u_{21} + 6 \cdot u_{01} + 2 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

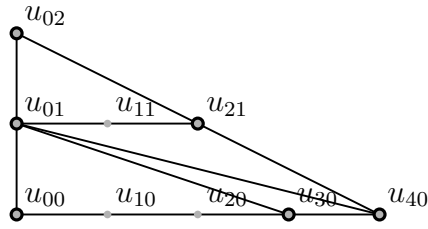
2	1
1	6 0 2
0	0 0 0 0 2
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{40} + 2 \cdot u_{01} &< 2 \cdot u_{20} + 2 \cdot u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 4 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{02}
 \end{aligned}$$

## 216. Vertex: $(0, 3, 4, 0, 0, 3, 4, 8, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{40} + 2 \cdot u_{21} + 6 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

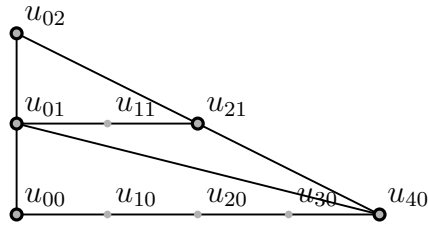
2	1				
1	6	0	2		
0	0	0	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 4 \cdot u_{30} &< 3 \cdot u_{40} + u_{00} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 2 \cdot u_{40} + u_{01} &< 2 \cdot u_{30} + u_{21} \\
 4 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{02}
 \end{aligned}$$

## 217. Vertex: $(0, 6, 0, 0, 0, 4, 4, 8, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{40} + 2 \cdot u_{21} + 6 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

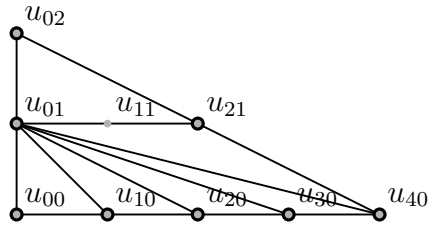
2	1				
1	6	0	2		
0	0	0	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 3 \cdot u_{40} + u_{00} &< 4 \cdot u_{30} \\
 2 \cdot u_{40} + 2 \cdot u_{00} &< 4 \cdot u_{20} \\
 u_{40} + 3 \cdot u_{00} &< 4 \cdot u_{10} \\
 2 \cdot u_{40} + 4 \cdot u_{01} &< 2 \cdot u_{00} + 4 \cdot u_{21} \\
 4 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{02}
 \end{aligned}$$

## 218. Vertex: $(0, 3, 2, 2, 2, 1, 4, 8, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{40} + 2 \cdot u_{21} + 6 \cdot u_{01} + 2 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

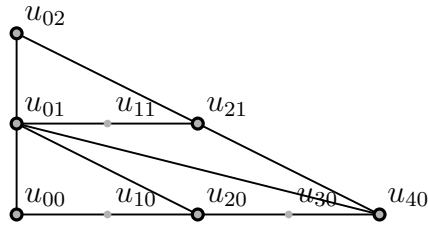
2	1
1	6 0 2
0	0 0 0 0 2
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{40} + u_{01} &< 2 \cdot u_{30} + u_{21} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 4 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{02}
 \end{aligned}$$

**219. Vertex:**  $(0, 4, 0, 4, 0, 2, 4, 8, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{40} + 2 \cdot u_{21} + 6 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

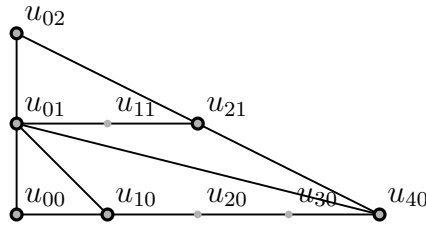
2	1				
1	6	0	2		
0	0	0	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{40} + 2 \cdot u_{01} &< 2 \cdot u_{20} + 2 \cdot u_{21} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 4 \cdot u_{20} &< 2 \cdot u_{40} + 2 \cdot u_{00} \\
 4 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{02}
 \end{aligned}$$

## 220. Vertex: $(0, 5, 0, 0, 4, 1, 4, 8, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{40} + 2 \cdot u_{21} + 6 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

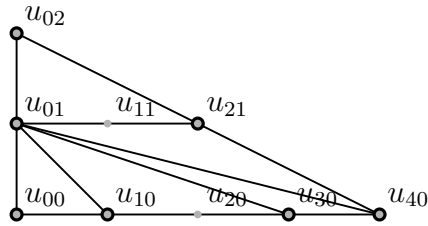
2	1				
1	6	0	2		
0	0	0	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{40} + 3 \cdot u_{01} &< 2 \cdot u_{10} + 3 \cdot u_{21} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 4 \cdot u_{10} &< u_{40} + 3 \cdot u_{00} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 4 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{02}
 \end{aligned}$$

## 221. Vertex: $(0, 3, 3, 0, 3, 1, 4, 8, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{40} + 2 \cdot u_{21} + 6 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

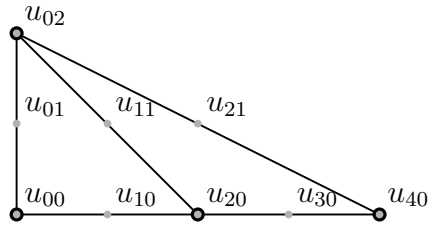
2	1				
1	6	0	2		
0	0	0	0	0	2
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 2 \cdot u_{40} + u_{01} &< 2 \cdot u_{30} + u_{21} \\
 4 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{02}
 \end{aligned}$$

## 222. Vertex: $(0, 4, 0, 8, 0, 4, 0, 0, 8)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $u_{40} + 4 \cdot u_{20} + u_{00} + 6 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

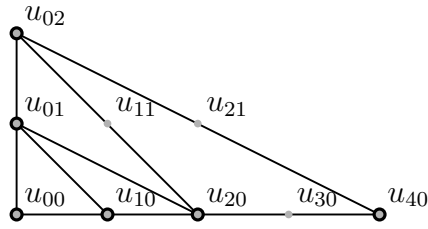
2	5
1	0 0 0
0	1 0 4 0 1
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 4 \cdot u_{20} + 4 \cdot u_{02} &< 8 \cdot u_{11} \\
 2 \cdot u_{40} + 2 \cdot u_{20} &< 4 \cdot u_{30} \\
 2 \cdot u_{20} + 2 \cdot u_{00} &< 4 \cdot u_{10} \\
 2 \cdot u_{40} + 2 \cdot u_{02} &< 4 \cdot u_{21} \\
 2 \cdot u_{00} + 2 \cdot u_{02} &< 4 \cdot u_{01} \\
 8 \cdot u_{20} &< 4 \cdot u_{40} + 4 \cdot u_{00}
 \end{aligned}$$

### 223. Vertex: $(0, 4, 0, 7, 2, 1, 0, 4, 6)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $u_{40} + 4 \cdot u_{20} + 2 \cdot u_{01} + 5 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

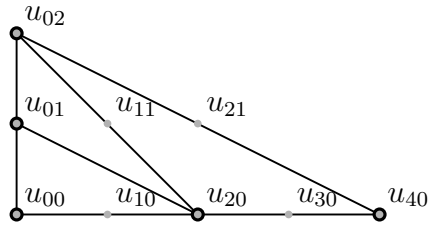
2	4				
1	2	0	0		
0	0	0	4	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 3 \cdot u_{20} + 3 \cdot u_{02} &< 6 \cdot u_{11} \\
 u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{10} + u_{02} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{40} + 2 \cdot u_{02} &< 4 \cdot u_{21} \\
 2 \cdot u_{40} + 2 \cdot u_{20} &< 4 \cdot u_{30} \\
 4 \cdot u_{20} + 2 \cdot u_{02} &< 2 \cdot u_{40} + 4 \cdot u_{01}
 \end{aligned}$$

## 224. Vertex: $(0, 4, 0, 8, 0, 2, 0, 4, 6)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $u_{40} + 4 \cdot u_{20} + 2 \cdot u_{01} + 5 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

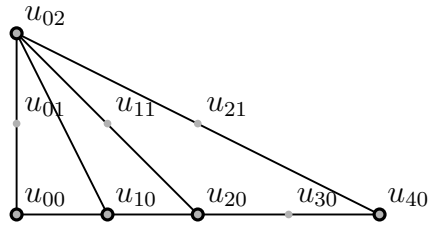
2	4				
1	2	0	0		
0	0	0	4	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 3 \cdot u_{20} + 3 \cdot u_{02} &< 6 \cdot u_{11} \\
 2 \cdot u_{40} + 2 \cdot u_{02} &< 4 \cdot u_{21} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 4 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{02} \\
 2 \cdot u_{40} + 2 \cdot u_{20} &< 4 \cdot u_{30} \\
 4 \cdot u_{20} + 2 \cdot u_{02} &< 2 \cdot u_{40} + 4 \cdot u_{01}
 \end{aligned}$$

**225. Vertex:**  $(0, 4, 0, 6, 4, 2, 0, 0, 8)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $u_{40} + 3 \cdot u_{20} + 2 \cdot u_{10} + 6 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

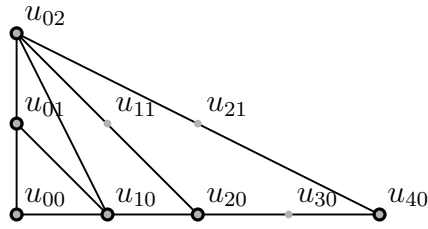
2	5				
1	0	0	0		
0	0	2	3	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 3 \cdot u_{20} + 3 \cdot u_{02} &< 6 \cdot u_{11} \\
 2 \cdot u_{40} + 2 \cdot u_{20} &< 4 \cdot u_{30} \\
 2 \cdot u_{40} + 2 \cdot u_{02} &< 4 \cdot u_{21} \\
 4 \cdot u_{10} &< 2 \cdot u_{20} + 2 \cdot u_{00} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 6 \cdot u_{20} &< 2 \cdot u_{40} + 4 \cdot u_{10}
 \end{aligned}$$

**226. Vertex:**  $(0, 4, 0, 6, 4, 1, 0, 2, 7)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $u_{40} + 3 \cdot u_{20} + 2 \cdot u_{10} + 6 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

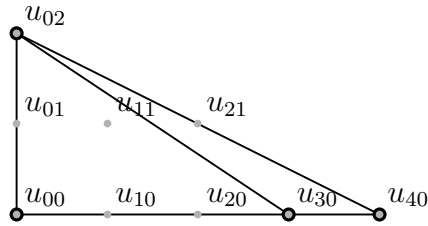
2	5				
1	0	0	0		
0	0	2	3	0	1
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 3 \cdot u_{20} + 3 \cdot u_{02} &< 6 \cdot u_{11} \\
 2 \cdot u_{10} + u_{02} &< u_{20} + 2 \cdot u_{01} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{40} + 2 \cdot u_{02} &< 4 \cdot u_{21} \\
 2 \cdot u_{40} + 2 \cdot u_{20} &< 4 \cdot u_{30} \\
 6 \cdot u_{20} &< 2 \cdot u_{40} + 4 \cdot u_{10}
 \end{aligned}$$

## 227. Vertex: $(0, 2, 8, 0, 0, 6, 0, 0, 8)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{30} + 2 \cdot u_{00} + 6 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

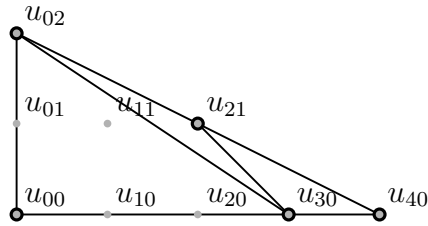
2	5				
1	0	0	0		
0	2	0	0	4	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{00} + 3 \cdot u_{02} &< 6 \cdot u_{11} \\
 4 \cdot u_{30} + 2 \cdot u_{00} &< 6 \cdot u_{20} \\
 8 \cdot u_{30} &< 6 \cdot u_{40} + 2 \cdot u_{00} \\
 3 \cdot u_{00} + 3 \cdot u_{02} &< 6 \cdot u_{01} \\
 2 \cdot u_{30} + 4 \cdot u_{00} &< 6 \cdot u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21}
 \end{aligned}$$

## 228. Vertex: $(0, 1, 8, 0, 0, 6, 2, 0, 7)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{30} + 2 \cdot u_{00} + 6 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

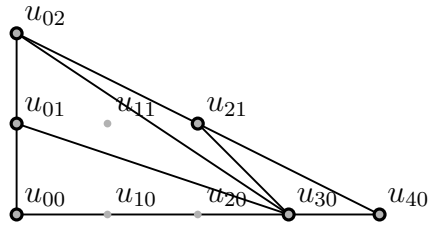
2	5				
1	0	0	0		
0	2	0	0	4	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{30} + u_{00} + 3 \cdot u_{02} &< 6 \cdot u_{11} \\
 4 \cdot u_{30} + 2 \cdot u_{00} &< 6 \cdot u_{20} \\
 2 \cdot u_{30} + 4 \cdot u_{00} &< 6 \cdot u_{10} \\
 3 \cdot u_{00} + 3 \cdot u_{02} &< 6 \cdot u_{01} \\
 4 \cdot u_{30} + 3 \cdot u_{02} &< u_{00} + 6 \cdot u_{21} \\
 2 \cdot u_{21} &< u_{40} + u_{02}
 \end{aligned}$$

**229. Vertex:**  $(0, 1, 8, 0, 0, 3, 2, 6, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{30} + 4 \cdot u_{01} + 4 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

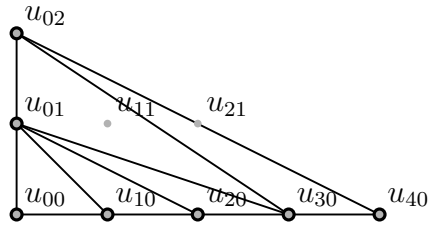
2	3				
1	4	0	0		
0	0	0	0	4	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} + u_{02} &< 3 \cdot u_{11} \\
 2 \cdot u_{30} + 2 \cdot u_{02} &< 3 \cdot u_{21} + u_{01} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 6 \cdot u_{01} &< 3 \cdot u_{00} + 3 \cdot u_{02}
 \end{aligned}$$

### 230. Vertex: $(0, 2, 6, 2, 2, 1, 0, 6, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{30} + 4 \cdot u_{01} + 4 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

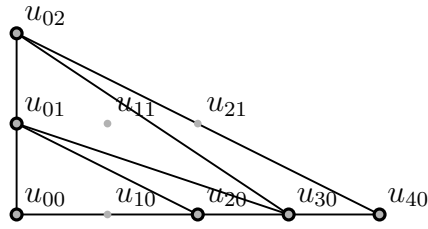
2	3
1	4 0 0
0	0 0 0 4 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} + u_{02} &< 3 \cdot u_{11} \\
 2 \cdot u_{30} + 2 \cdot u_{01} &< 3 \cdot u_{20} + u_{02} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 4 \cdot u_{30} + u_{02} &< 3 \cdot u_{40} + 2 \cdot u_{01} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 u_{40} + u_{02} &< 2 \cdot u_{21}
 \end{aligned}$$

## 231. Vertex: $(0, 2, 6, 3, 0, 2, 0, 6, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{30} + 4 \cdot u_{01} + 4 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

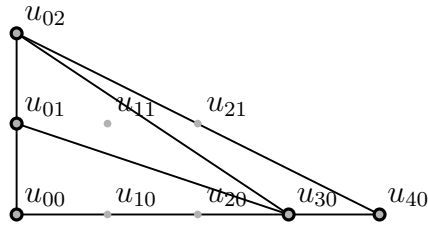
2	3				
1	4	0	0		
0	0	0	0	4	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} + u_{02} &< 3 \cdot u_{11} \\
 2 \cdot u_{30} + 2 \cdot u_{01} &< 3 \cdot u_{20} + u_{02} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 4 \cdot u_{30} + u_{02} &< 3 \cdot u_{40} + 2 \cdot u_{01} \\
 u_{40} + u_{02} &< 2 \cdot u_{21}
 \end{aligned}$$

**232. Vertex:**  $(0, 2, 8, 0, 0, 3, 0, 6, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{30} + 4 \cdot u_{01} + 4 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

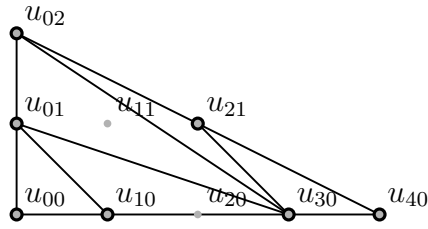
2	3
1	4 0 0
0	0 0 0 4 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} + u_{02} &< 3 \cdot u_{11} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 6 \cdot u_{01} &< 3 \cdot u_{00} + 3 \cdot u_{02} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 4 \cdot u_{30} + u_{02} &< 3 \cdot u_{40} + 2 \cdot u_{01}
 \end{aligned}$$

### 233. Vertex: $(0, 1, 7, 0, 3, 1, 2, 6, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{30} + 4 \cdot u_{01} + 4 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

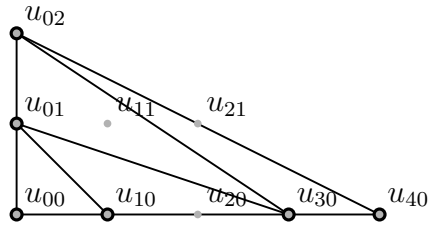
2	3
1	4 0 0
0	0 0 0 4 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} + u_{02} &< 3 \cdot u_{11} \\
 2 \cdot u_{30} + 2 \cdot u_{02} &< 3 \cdot u_{21} + u_{01} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{30} + 4 \cdot u_{01} &< 3 \cdot u_{10} + 2 \cdot u_{02}
 \end{aligned}$$

### 234. Vertex: $(0, 2, 7, 0, 3, 1, 0, 6, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{30} + 4 \cdot u_{01} + 4 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

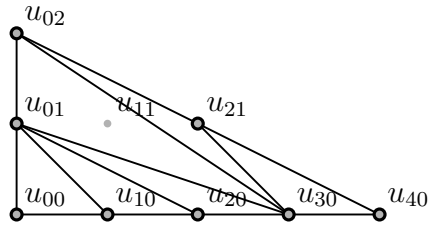
2	3				
1	4	0	0		
0	0	0	0	4	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} + u_{02} &< 3 \cdot u_{11} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{30} + 4 \cdot u_{01} &< 3 \cdot u_{10} + 2 \cdot u_{02} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 4 \cdot u_{30} + u_{02} &< 3 \cdot u_{40} + 2 \cdot u_{01}
 \end{aligned}$$

### 235. Vertex: $(0, 1, 6, 2, 2, 1, 2, 6, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{30} + 4 \cdot u_{01} + 4 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

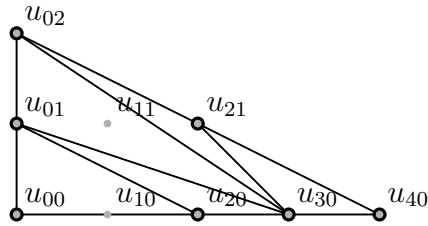
2	3				
1	4	0	0		
0	0	0	0	4	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} + u_{02} &< 3 \cdot u_{11} \\
 2 \cdot u_{30} + 2 \cdot u_{02} &< 3 \cdot u_{21} + u_{01} \\
 2 \cdot u_{30} + 2 \cdot u_{01} &< 3 \cdot u_{20} + u_{02} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{10} &< u_{20} + u_{00}
 \end{aligned}$$

**236. Vertex:**  $(0, 1, 6, 3, 0, 2, 2, 6, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{30} + 4 \cdot u_{01} + 4 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

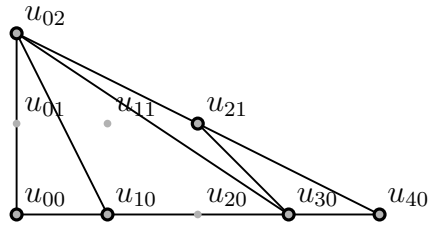
2	3				
1	4	0	0		
0	0	0	0	4	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{01} + u_{02} &< 3 \cdot u_{11} \\
 2 \cdot u_{30} + 2 \cdot u_{02} &< 3 \cdot u_{21} + u_{01} \\
 2 \cdot u_{30} + 2 \cdot u_{01} &< 3 \cdot u_{20} + u_{02} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{20} + u_{00} &< 2 \cdot u_{10}
 \end{aligned}$$

### 237. Vertex: $(0, 1, 6, 0, 6, 2, 2, 0, 7)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{30} + 3 \cdot u_{10} + 6 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

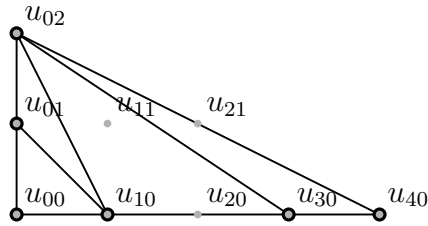
2	5
1	0 0 0
0	0 3 0 3 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{30} + 2 \cdot u_{10} &< 4 \cdot u_{20} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 6 \cdot u_{10} &< 2 \cdot u_{30} + 4 \cdot u_{00} \\
 3 \cdot u_{30} + 2 \cdot u_{02} &< u_{10} + 4 \cdot u_{21}
 \end{aligned}$$

### 238. Vertex: $(0, 2, 6, 0, 6, 1, 0, 2, 7)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{30} + 3 \cdot u_{10} + 6 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

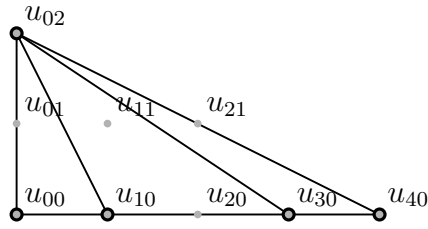
2	5
1	0 0 0
0	0 3 0 3 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{30} + 2 \cdot u_{10} &< 4 \cdot u_{20} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 6 \cdot u_{30} &< 4 \cdot u_{40} + 2 \cdot u_{10} \\
 3 \cdot u_{10} + 2 \cdot u_{02} &< u_{30} + 4 \cdot u_{01} \\
 u_{40} + u_{02} &< 2 \cdot u_{21}
 \end{aligned}$$

**239. Vertex:**  $(0, 2, 6, 0, 6, 2, 0, 0, 8)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{30} + 3 \cdot u_{10} + 6 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

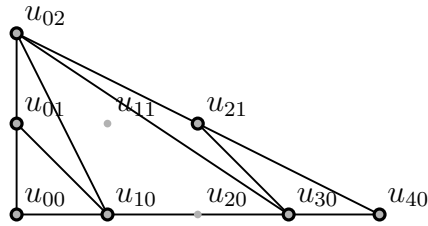
2	5
1	0 0 0
0	0 3 0 3 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{30} + 2 \cdot u_{10} &< 4 \cdot u_{20} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 6 \cdot u_{10} &< 2 \cdot u_{30} + 4 \cdot u_{00} \\
 6 \cdot u_{30} &< 4 \cdot u_{40} + 2 \cdot u_{10}
 \end{aligned}$$

## 240. Vertex: $(0, 1, 6, 0, 6, 1, 2, 2, 6)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{30} + 3 \cdot u_{10} + 6 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

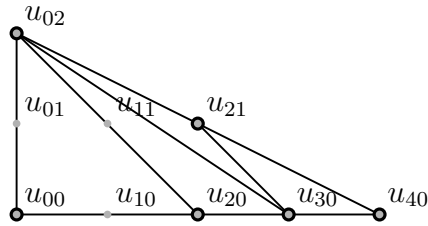
2	5
1	0 0 0
0	0 3 0 3 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{30} + u_{10} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{30} + 2 \cdot u_{10} &< 4 \cdot u_{20} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 3 \cdot u_{30} + 2 \cdot u_{02} &< u_{10} + 4 \cdot u_{21} \\
 3 \cdot u_{10} + 2 \cdot u_{02} &< u_{30} + 4 \cdot u_{01}
 \end{aligned}$$

**241. Vertex:**  $(0, 1, 4, 6, 0, 4, 2, 0, 7)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{30} + 3 \cdot u_{20} + u_{00} + 6 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

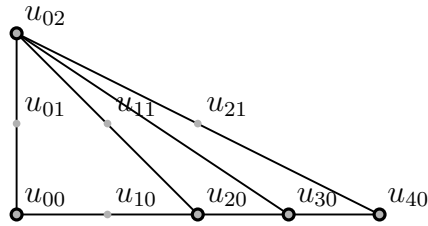
2	5
1	0 0 0
0	1 0 3 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 3 \cdot u_{20} + 3 \cdot u_{02} &< 6 \cdot u_{11} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{20} + 2 \cdot u_{00} &< 4 \cdot u_{10} \\
 2 \cdot u_{30} + u_{02} &< u_{20} + 2 \cdot u_{21} \\
 2 \cdot u_{00} + 2 \cdot u_{02} &< 4 \cdot u_{01} \\
 6 \cdot u_{20} &< 4 \cdot u_{30} + 2 \cdot u_{00}
 \end{aligned}$$

## 242. Vertex: $(0, 2, 4, 6, 0, 4, 0, 0, 8)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{30} + 3 \cdot u_{20} + u_{00} + 6 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

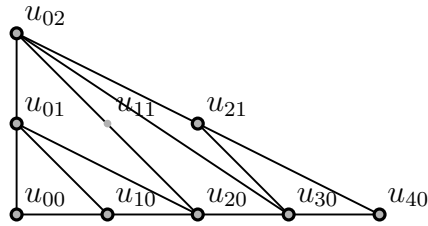
2	5				
1	0	0	0		
0	1	0	3	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 3 \cdot u_{20} + 3 \cdot u_{02} &< 6 \cdot u_{11} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 2 \cdot u_{20} + 2 \cdot u_{00} &< 4 \cdot u_{10} \\
 4 \cdot u_{30} &< 2 \cdot u_{40} + 2 \cdot u_{20} \\
 2 \cdot u_{00} + 2 \cdot u_{02} &< 4 \cdot u_{01} \\
 6 \cdot u_{20} &< 4 \cdot u_{30} + 2 \cdot u_{00}
 \end{aligned}$$

### 243. Vertex: $(0, 1, 4, 5, 2, 1, 2, 4, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{30} + 3 \cdot u_{20} + 2 \cdot u_{01} + 5 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

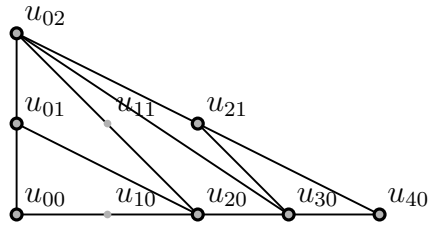
2	4
1	2 0 0
0	0 0 3 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{30} + u_{02} &< u_{20} + 2 \cdot u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{10} + u_{02} \\
 3 \cdot u_{20} + u_{02} &< 2 \cdot u_{30} + 2 \cdot u_{01}
 \end{aligned}$$

**244. Vertex:**  $(0, 1, 4, 6, 0, 2, 2, 4, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{30} + 3 \cdot u_{20} + 2 \cdot u_{01} + 5 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

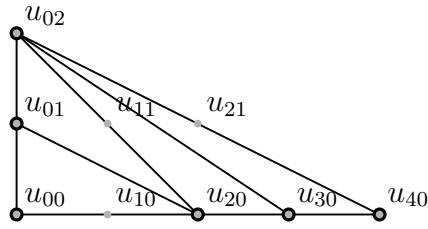
2	4
1	2 0 0
0	0 0 3 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{30} + u_{02} &< u_{20} + 2 \cdot u_{21} \\
 4 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{02} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 3 \cdot u_{20} + u_{02} &< 2 \cdot u_{30} + 2 \cdot u_{01}
 \end{aligned}$$

## 245. Vertex: $(0, 2, 4, 6, 0, 2, 0, 4, 6)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{30} + 3 \cdot u_{20} + 2 \cdot u_{01} + 5 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

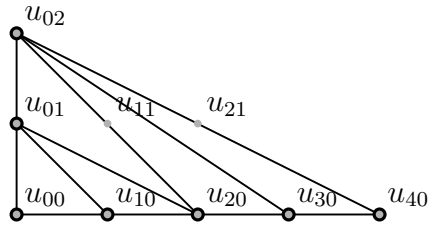
2	4				
1	2	0	0		
0	0	0	3	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 4 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{02} \\
 4 \cdot u_{30} &< 2 \cdot u_{40} + 2 \cdot u_{20} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 3 \cdot u_{20} + u_{02} &< 2 \cdot u_{30} + 2 \cdot u_{01}
 \end{aligned}$$

**246. Vertex:**  $(0, 2, 4, 5, 2, 1, 0, 4, 6)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{30} + 3 \cdot u_{20} + 2 \cdot u_{01} + 5 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

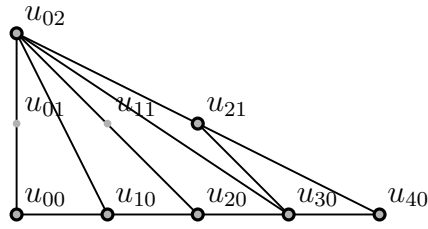
2	4				
1	2	0	0		
0	0	0	3	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 4 \cdot u_{30} &< 2 \cdot u_{40} + 2 \cdot u_{20} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{10} + u_{02} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 3 \cdot u_{20} + u_{02} &< 2 \cdot u_{30} + 2 \cdot u_{01}
 \end{aligned}$$

**247. Vertex:**  $(0, 1, 4, 4, 4, 2, 2, 0, 7)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{30} + 2 \cdot u_{20} + 2 \cdot u_{10} + 6 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

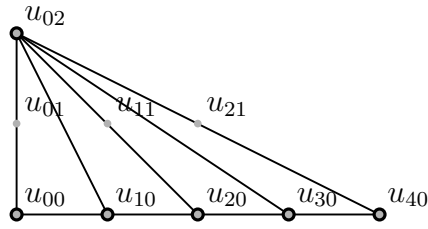
2	5
1	0 0 0
0	0 2 2 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 4 \cdot u_{10} &< 2 \cdot u_{20} + 2 \cdot u_{00} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{30} + u_{02} &< u_{20} + 2 \cdot u_{21} \\
 4 \cdot u_{20} &< 2 \cdot u_{30} + 2 \cdot u_{10}
 \end{aligned}$$

**248. Vertex:**  $(0, 2, 4, 4, 4, 2, 0, 0, 8)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{30} + 2 \cdot u_{20} + 2 \cdot u_{10} + 6 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

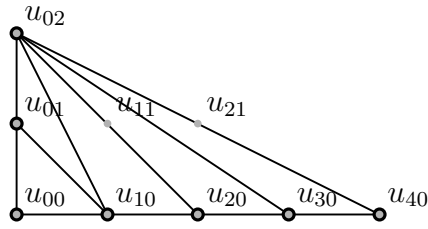
2	5
1	0 0 0
0	0 2 2 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 4 \cdot u_{10} &< 2 \cdot u_{20} + 2 \cdot u_{00} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 4 \cdot u_{30} &< 2 \cdot u_{40} + 2 \cdot u_{20} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 4 \cdot u_{20} &< 2 \cdot u_{30} + 2 \cdot u_{10}
 \end{aligned}$$

**249. Vertex:**  $(0, 2, 4, 4, 4, 1, 0, 2, 7)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{30} + 2 \cdot u_{20} + 2 \cdot u_{10} + 6 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

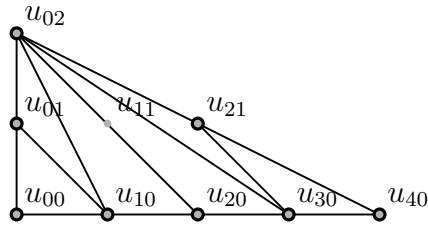
2	5
1	0 0 0
0	0 2 2 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 4 \cdot u_{30} &< 2 \cdot u_{40} + 2 \cdot u_{20} \\
 2 \cdot u_{10} + u_{02} &< u_{20} + 2 \cdot u_{01} \\
 u_{40} + u_{02} &< 2 \cdot u_{21} \\
 4 \cdot u_{20} &< 2 \cdot u_{30} + 2 \cdot u_{10}
 \end{aligned}$$

**250. Vertex:**  $(0, 1, 4, 4, 4, 1, 2, 2, 6)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{30} + 2 \cdot u_{20} + 2 \cdot u_{10} + 6 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

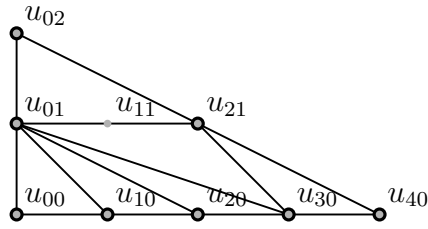
2	5
1	0 0 0
0	0 2 2 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{10} + u_{02} &< u_{20} + 2 \cdot u_{01} \\
 2 \cdot u_{21} &< u_{40} + u_{02} \\
 2 \cdot u_{30} + u_{02} &< u_{20} + 2 \cdot u_{21} \\
 4 \cdot u_{20} &< 2 \cdot u_{30} + 2 \cdot u_{10}
 \end{aligned}$$

## 251. Vertex: $(0, 1, 4, 2, 2, 1, 5, 7, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{30} + 3 \cdot u_{21} + 5 \cdot u_{01} + 2 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

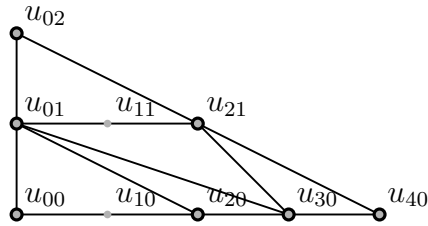
2	1
1	5 0 3
0	0 0 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{30} + u_{01} &< 2 \cdot u_{20} + u_{21} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{30} + u_{21} &< 2 \cdot u_{40} + u_{01} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 3 \cdot u_{21} + u_{01} &< 2 \cdot u_{30} + 2 \cdot u_{02}
 \end{aligned}$$

## 252. Vertex: $(0, 1, 4, 3, 0, 2, 5, 7, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{30} + 3 \cdot u_{21} + 5 \cdot u_{01} + 2 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

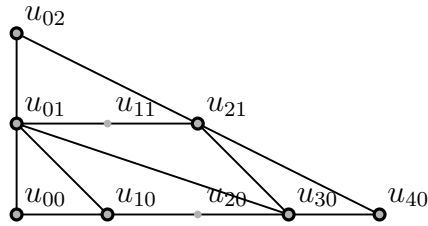
2	1
1	5 0 3
0	0 0 0 2 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{30} + u_{01} &< 2 \cdot u_{20} + u_{21} \\
 2 \cdot u_{30} + u_{21} &< 2 \cdot u_{40} + u_{01} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 3 \cdot u_{21} + u_{01} &< 2 \cdot u_{30} + 2 \cdot u_{02}
 \end{aligned}$$

### 253. Vertex: $(0, 1, 5, 0, 3, 1, 5, 7, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{30} + 3 \cdot u_{21} + 5 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

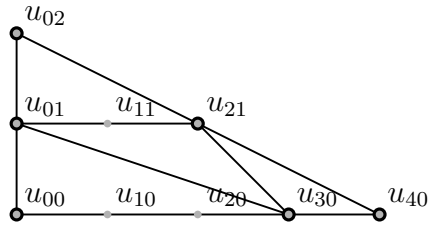
2	1				
1	5	0	3		
0	0	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{30} + 2 \cdot u_{01} &< 2 \cdot u_{10} + 2 \cdot u_{21} \\
 2 \cdot u_{30} + u_{21} &< 2 \cdot u_{40} + u_{01} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 3 \cdot u_{21} + u_{01} &< 2 \cdot u_{30} + 2 \cdot u_{02}
 \end{aligned}$$

## 254. Vertex: $(0, 1, 6, 0, 0, 3, 5, 7, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{30} + 3 \cdot u_{21} + 5 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

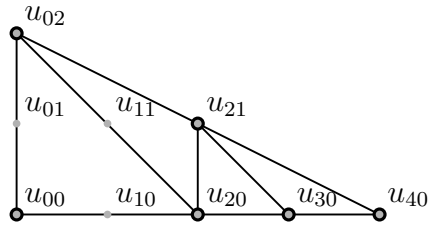
2	1				
1	5	0	3		
0	0	0	0	2	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{30} + u_{21} &< 2 \cdot u_{40} + u_{01} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 2 \cdot u_{30} + 3 \cdot u_{01} &< 2 \cdot u_{00} + 3 \cdot u_{21} \\
 3 \cdot u_{21} + u_{01} &< 2 \cdot u_{30} + 2 \cdot u_{02}
 \end{aligned}$$

**255. Vertex:**  $(0, 1, 2, 7, 0, 4, 4, 0, 6)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{20} + u_{00} + 2 \cdot u_{21} + 5 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

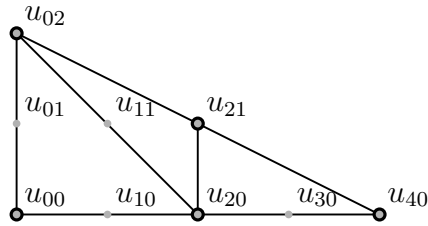
2	4				
1	0	0	2		
0	1	0	4	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 3 \cdot u_{20} + 3 \cdot u_{02} &< 6 \cdot u_{11} \\
 2 \cdot u_{00} + 2 \cdot u_{02} &< 4 \cdot u_{01} \\
 u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{30} + u_{02} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{20} + 2 \cdot u_{00} &< 4 \cdot u_{10} \\
 4 \cdot u_{20} + 2 \cdot u_{02} &< 2 \cdot u_{00} + 4 \cdot u_{21}
 \end{aligned}$$

**256. Vertex:**  $(0, 2, 0, 8, 0, 4, 4, 0, 6)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{20} + u_{00} + 2 \cdot u_{21} + 5 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

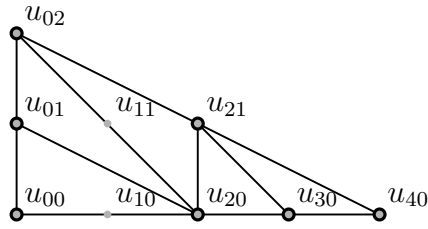
2	4
1	0 0 2
0	1 0 4 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 3 \cdot u_{20} + 3 \cdot u_{02} &< 6 \cdot u_{11} \\
 2 \cdot u_{00} + 2 \cdot u_{02} &< 4 \cdot u_{01} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{20} + 2 \cdot u_{00} &< 4 \cdot u_{10} \\
 4 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{02} \\
 4 \cdot u_{20} + 2 \cdot u_{02} &< 2 \cdot u_{00} + 4 \cdot u_{21}
 \end{aligned}$$

**257. Vertex:**  $(0, 1, 2, 7, 0, 2, 4, 4, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{20} + 2 \cdot u_{21} + 2 \cdot u_{01} + 4 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

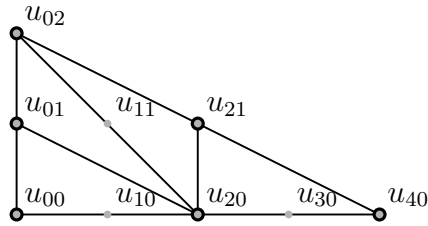
2	3				
1	2	0	2		
0	0	0	4	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{20} + 2 \cdot u_{02} &< 2 \cdot u_{21} + 2 \cdot u_{01} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 4 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{02} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{30} + u_{02}
 \end{aligned}$$

**258. Vertex:**  $(0, 2, 0, 8, 0, 2, 4, 4, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{20} + 2 \cdot u_{21} + 2 \cdot u_{01} + 4 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

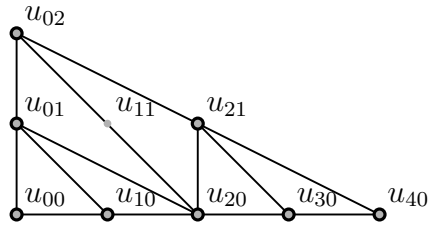
2	3				
1	2	0	2		
0	0	0	4	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{20} + 2 \cdot u_{02} &< 2 \cdot u_{21} + 2 \cdot u_{01} \\
 4 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{02} \\
 4 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{02} \\
 u_{20} + u_{00} &< 2 \cdot u_{10}
 \end{aligned}$$

## 259. Vertex: $(0, 1, 2, 6, 2, 1, 4, 4, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{20} + 2 \cdot u_{21} + 2 \cdot u_{01} + 4 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

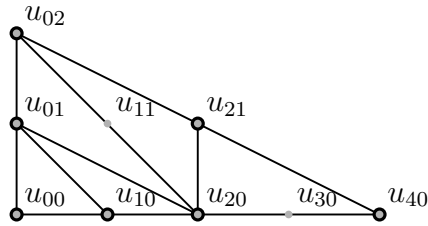
2	3
1	2 0 2
0	0 0 4 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{30} + u_{02} \\
 2 \cdot u_{20} + 2 \cdot u_{02} &< 2 \cdot u_{21} + 2 \cdot u_{01} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{10} + u_{02}
 \end{aligned}$$

**260. Vertex:**  $(0, 2, 0, 7, 2, 1, 4, 4, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{20} + 2 \cdot u_{21} + 2 \cdot u_{01} + 4 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

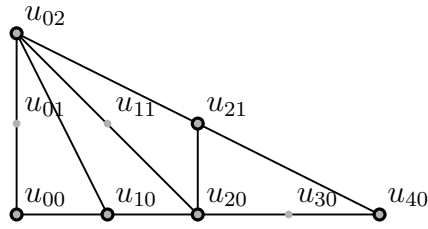
2	3
1	2 0 2
0	0 0 4 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 4 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{02} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{10} + u_{02} \\
 2 \cdot u_{20} + 2 \cdot u_{02} &< 2 \cdot u_{21} + 2 \cdot u_{01}
 \end{aligned}$$

**261. Vertex:**  $(0, 2, 0, 6, 4, 2, 4, 0, 6)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{20} + 2 \cdot u_{10} + 2 \cdot u_{21} + 5 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

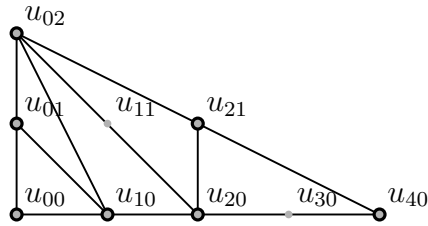
2	4				
1	0	0	2		
0	0	2	3	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 4 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{02} \\
 4 \cdot u_{10} &< 2 \cdot u_{20} + 2 \cdot u_{00} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 3 \cdot u_{20} + u_{02} &< 2 \cdot u_{10} + 2 \cdot u_{21}
 \end{aligned}$$

**262. Vertex:**  $(0, 2, 0, 6, 4, 1, 4, 2, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{20} + 2 \cdot u_{10} + 2 \cdot u_{21} + 5 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

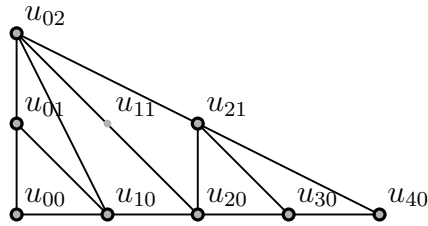
2	4				
1	0	0	2		
0	0	2	3	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 4 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{02} \\
 2 \cdot u_{10} + u_{02} &< u_{20} + 2 \cdot u_{01} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 3 \cdot u_{20} + u_{02} &< 2 \cdot u_{10} + 2 \cdot u_{21}
 \end{aligned}$$

### 263. Vertex: $(0, 1, 2, 5, 4, 1, 4, 2, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{20} + 2 \cdot u_{10} + 2 \cdot u_{21} + 5 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

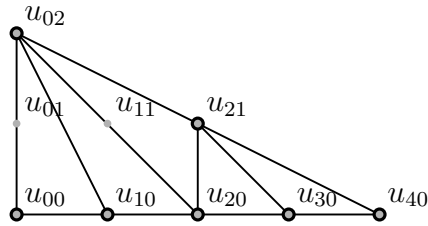
2	4				
1	0	0	2		
0	0	2	3	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{10} + u_{02} &< u_{20} + 2 \cdot u_{01} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{30} + u_{02} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 3 \cdot u_{20} + u_{02} &< 2 \cdot u_{10} + 2 \cdot u_{21}
 \end{aligned}$$

## 264. Vertex: $(0, 1, 2, 5, 4, 2, 4, 0, 6)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{20} + 2 \cdot u_{10} + 2 \cdot u_{21} + 5 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

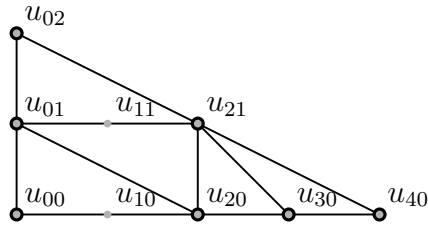
2	4
1	0 0 2
0	0 2 3 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{20} + 2 \cdot u_{02} &< 4 \cdot u_{11} \\
 u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{30} + u_{02} \\
 4 \cdot u_{10} &< 2 \cdot u_{20} + 2 \cdot u_{00} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 3 \cdot u_{20} + u_{02} &< 2 \cdot u_{10} + 2 \cdot u_{21}
 \end{aligned}$$

**265. Vertex:**  $(0, 1, 2, 5, 0, 2, 6, 6, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{20} + 4 \cdot u_{21} + 4 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

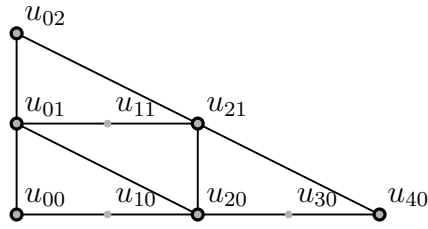
2	1				
1	4	0	4		
0	0	0	2	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{21} + 2 \cdot u_{01} &< 2 \cdot u_{20} + 2 \cdot u_{02} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{20} + u_{21} &< 2 \cdot u_{30} + u_{01} \\
 2 \cdot u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{21}
 \end{aligned}$$

**266. Vertex:**  $(0, 2, 0, 6, 0, 2, 6, 6, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{20} + 4 \cdot u_{21} + 4 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

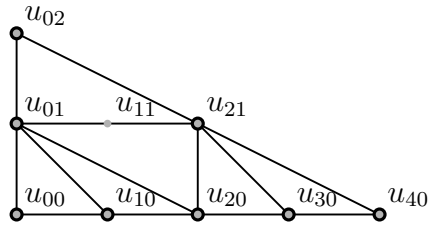
2	1				
1	4	0	4		
0	0	0	2	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{21} + 2 \cdot u_{01} &< 2 \cdot u_{20} + 2 \cdot u_{02} \\
 2 \cdot u_{20} + 2 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{21} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 2 \cdot u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{01}
 \end{aligned}$$

**267. Vertex:**  $(0, 1, 2, 4, 2, 1, 6, 6, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{20} + 4 \cdot u_{21} + 4 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

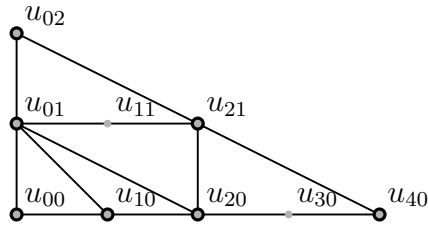
2	1				
1	4	0	4		
0	0	0	2	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{20} + u_{21} &< 2 \cdot u_{30} + u_{01} \\
 2 \cdot u_{20} + u_{01} &< 2 \cdot u_{10} + u_{21} \\
 2 \cdot u_{21} + 2 \cdot u_{01} &< 2 \cdot u_{20} + 2 \cdot u_{02} \\
 2 \cdot u_{30} &< u_{40} + u_{20}
 \end{aligned}$$

**268. Vertex:**  $(0, 2, 0, 5, 2, 1, 6, 6, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{20} + 4 \cdot u_{21} + 4 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

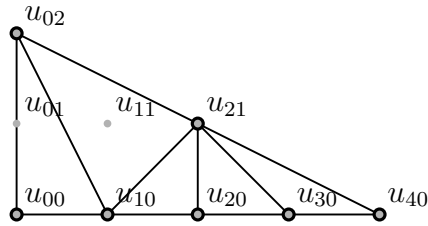
2	1				
1	4	0	4		
0	0	0	2	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{20} + 2 \cdot u_{21} &< 2 \cdot u_{40} + 2 \cdot u_{01} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{21} + 2 \cdot u_{01} &< 2 \cdot u_{20} + 2 \cdot u_{02} \\
 2 \cdot u_{20} + u_{01} &< 2 \cdot u_{10} + u_{21}
 \end{aligned}$$

**269. Vertex:**  $(0, 1, 2, 2, 6, 2, 6, 0, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{10} + 4 \cdot u_{21} + 4 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

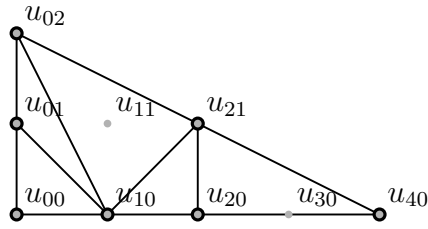
2	3				
1	0	0	4		
0	0	4	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{21} + u_{02} &< 3 \cdot u_{11} \\
 2 \cdot u_{10} + 2 \cdot u_{21} &< 3 \cdot u_{20} + u_{02} \\
 4 \cdot u_{10} + u_{02} &< 3 \cdot u_{00} + 2 \cdot u_{21} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 2 \cdot u_{30} &< u_{40} + u_{20}
 \end{aligned}$$

**270. Vertex:**  $(0, 2, 0, 3, 6, 1, 6, 2, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{10} + 4 \cdot u_{21} + 4 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

2	3				
1	0	0	4		
0	0	4	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

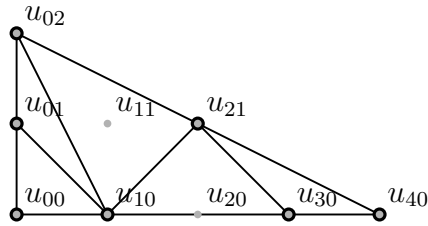
The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{21} + u_{02} &< 3 \cdot u_{11} \\
 2 \cdot u_{10} + 2 \cdot u_{21} &< 3 \cdot u_{20} + u_{02} \\
 2 \cdot u_{10} + 2 \cdot u_{02} &< u_{21} + 3 \cdot u_{01} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{01} &< u_{00} + u_{02}
 \end{aligned}$$



## 272. Vertex: $(0, 1, 3, 0, 7, 1, 6, 2, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{10} + 4 \cdot u_{21} + 4 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

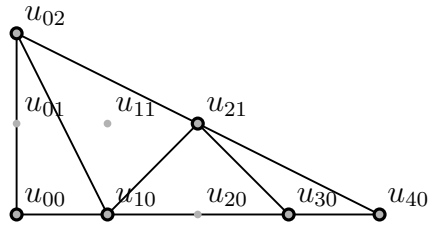
2	3				
1	0	0	4		
0	0	4	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{21} + u_{02} &< 3 \cdot u_{11} \\
 2 \cdot u_{10} + 2 \cdot u_{02} &< u_{21} + 3 \cdot u_{01} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 u_{10} + 4 \cdot u_{21} &< 3 \cdot u_{30} + 2 \cdot u_{02} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 u_{30} + u_{10} &< 2 \cdot u_{20}
 \end{aligned}$$

### 273. Vertex: $(0, 1, 3, 0, 7, 2, 6, 0, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{10} + 4 \cdot u_{21} + 4 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

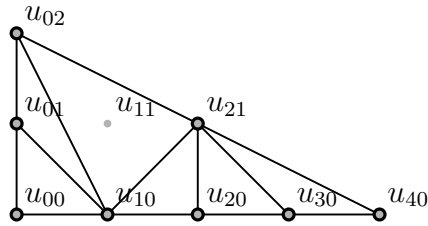
2	3
1	0 0 4
0	0 4 0 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{21} + u_{02} &< 3 \cdot u_{11} \\
 4 \cdot u_{10} + u_{02} &< 3 \cdot u_{00} + 2 \cdot u_{21} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 u_{10} + 4 \cdot u_{21} &< 3 \cdot u_{30} + 2 \cdot u_{02} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10}
 \end{aligned}$$

**274. Vertex:**  $(0, 1, 2, 2, 6, 1, 6, 2, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{10} + 4 \cdot u_{21} + 4 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

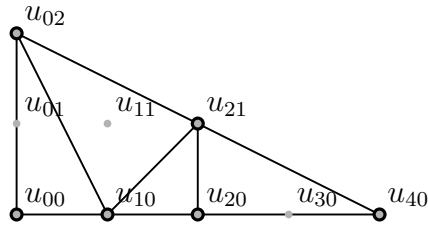
2	3
1	0 0 4
0	0 4 0 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{21} + u_{02} &< 3 \cdot u_{11} \\
 2 \cdot u_{10} + 2 \cdot u_{02} &< u_{21} + 3 \cdot u_{01} \\
 2 \cdot u_{10} + 2 \cdot u_{21} &< 3 \cdot u_{20} + u_{02} \\
 2 \cdot u_{01} &< u_{00} + u_{02} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{20} &< u_{30} + u_{10}
 \end{aligned}$$

## 275. Vertex: $(0, 2, 0, 3, 6, 2, 6, 0, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{10} + 4 \cdot u_{21} + 4 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

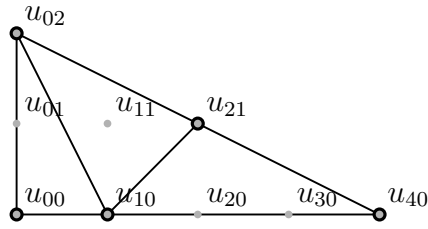
2	3				
1	0	0	4		
0	0	4	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{21} + u_{02} &< 3 \cdot u_{11} \\
 2 \cdot u_{10} + 2 \cdot u_{21} &< 3 \cdot u_{20} + u_{02} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 4 \cdot u_{10} + u_{02} &< 3 \cdot u_{00} + 2 \cdot u_{21} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10}
 \end{aligned}$$

**276. Vertex:**  $(0, 3, 0, 0, 8, 2, 6, 0, 5)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $4 \cdot u_{10} + 4 \cdot u_{21} + 4 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

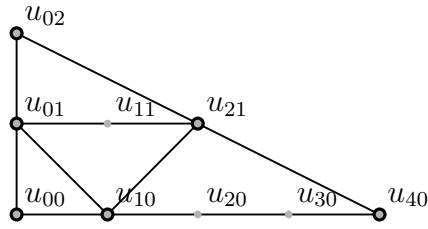
2	3				
1	0	0	4		
0	0	4	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{10} + u_{21} + u_{02} &< 3 \cdot u_{11} \\
 u_{00} + u_{02} &< 2 \cdot u_{01} \\
 6 \cdot u_{21} &< 3 \cdot u_{40} + 3 \cdot u_{02} \\
 4 \cdot u_{10} + u_{02} &< 3 \cdot u_{00} + 2 \cdot u_{21} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20}
 \end{aligned}$$

**277. Vertex:**  $(0, 3, 0, 0, 6, 1, 7, 5, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{10} + 5 \cdot u_{21} + 3 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

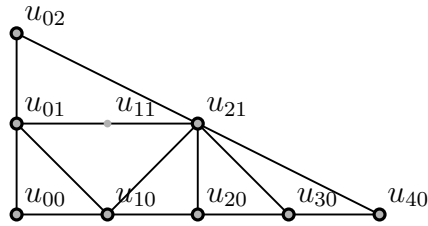
2	1				
1	3	0	5		
0	0	2	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{10} + u_{01} &< 2 \cdot u_{00} + u_{21} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 2 \cdot u_{10} + 3 \cdot u_{21} &< 2 \cdot u_{40} + 3 \cdot u_{01} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 u_{21} + 3 \cdot u_{01} &< 2 \cdot u_{10} + 2 \cdot u_{02}
 \end{aligned}$$

**278. Vertex:**  $(0, 1, 2, 2, 4, 1, 7, 5, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{10} + 5 \cdot u_{21} + 3 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

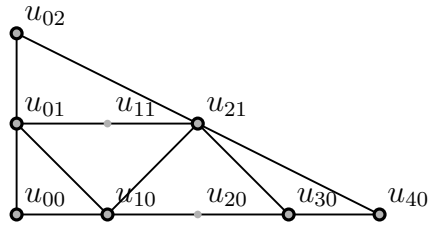
2	1				
1	3	0	5		
0	0	2	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{10} + u_{01} &< 2 \cdot u_{00} + u_{21} \\
 2 \cdot u_{10} + u_{21} &< 2 \cdot u_{20} + u_{01} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{21} + 3 \cdot u_{01} &< 2 \cdot u_{10} + 2 \cdot u_{02}
 \end{aligned}$$

**279. Vertex:**  $(0, 1, 3, 0, 5, 1, 7, 5, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{10} + 5 \cdot u_{21} + 3 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

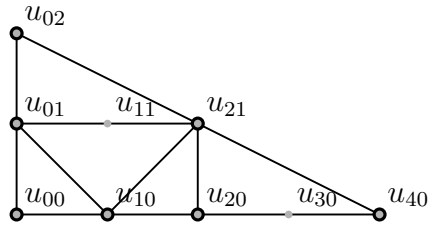
2	1				
1	3	0	5		
0	0	2	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 2 \cdot u_{10} + 2 \cdot u_{21} &< 2 \cdot u_{30} + 2 \cdot u_{01} \\
 2 \cdot u_{10} + u_{01} &< 2 \cdot u_{00} + u_{21} \\
 u_{21} + 3 \cdot u_{01} &< 2 \cdot u_{10} + 2 \cdot u_{02}
 \end{aligned}$$

**280. Vertex:**  $(0, 2, 0, 3, 4, 1, 7, 5, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{10} + 5 \cdot u_{21} + 3 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

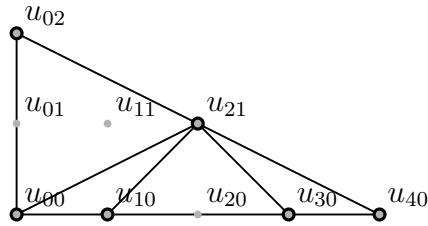
2	1				
1	3	0	5		
0	0	2	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 2 \cdot u_{10} + u_{01} &< 2 \cdot u_{00} + u_{21} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 2 \cdot u_{10} + u_{21} &< 2 \cdot u_{20} + u_{01} \\
 u_{21} + 3 \cdot u_{01} &< 2 \cdot u_{10} + 2 \cdot u_{02}
 \end{aligned}$$

**281. Vertex:**  $(0, 1, 3, 0, 3, 5, 8, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{00} + 6 \cdot u_{21} + 3 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

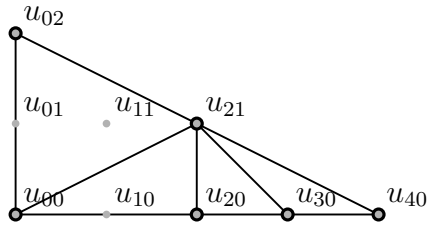
2	2				
1	0	0	6		
0	3	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 2 \cdot u_{21} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{00} + 2 \cdot u_{02} &< 4 \cdot u_{01} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 3 \cdot u_{00} + 2 \cdot u_{21} &< 4 \cdot u_{10} + u_{02}
 \end{aligned}$$

## 282. Vertex: $(0, 1, 2, 3, 0, 6, 8, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{00} + 6 \cdot u_{21} + 3 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

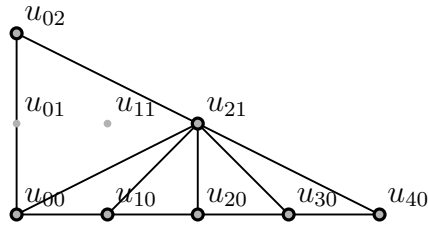
2	2
1	0 0 6
0	3 0 0 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 2 \cdot u_{21} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{00} + 4 \cdot u_{21} &< 4 \cdot u_{20} + 2 \cdot u_{02} \\
 2 \cdot u_{00} + 2 \cdot u_{02} &< 4 \cdot u_{01} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 2 \cdot u_{30} &< u_{40} + u_{20}
 \end{aligned}$$

### 283. Vertex: $(0, 1, 2, 2, 2, 5, 8, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{00} + 6 \cdot u_{21} + 3 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

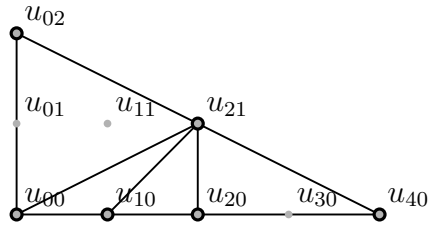
2	2				
1	0	0	6		
0	3	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 2 \cdot u_{21} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{00} + 2 \cdot u_{02} &< 4 \cdot u_{01} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 3 \cdot u_{00} + 2 \cdot u_{21} &< 4 \cdot u_{10} + u_{02} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{30} &< u_{40} + u_{20}
 \end{aligned}$$

**284. Vertex:**  $(0, 2, 0, 3, 2, 5, 8, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{00} + 6 \cdot u_{21} + 3 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

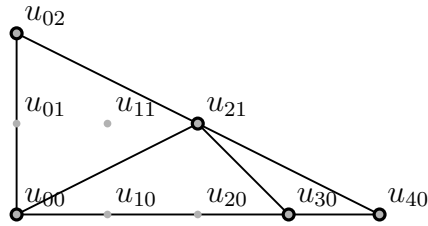
2	2
1	0 0 6
0	3 0 0 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 2 \cdot u_{21} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{00} + 2 \cdot u_{02} &< 4 \cdot u_{01} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 3 \cdot u_{00} + 2 \cdot u_{21} &< 4 \cdot u_{10} + u_{02} \\
 2 \cdot u_{10} &< u_{20} + u_{00}
 \end{aligned}$$

## 285. Vertex: $(0, 1, 4, 0, 0, 7, 8, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{00} + 6 \cdot u_{21} + 3 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

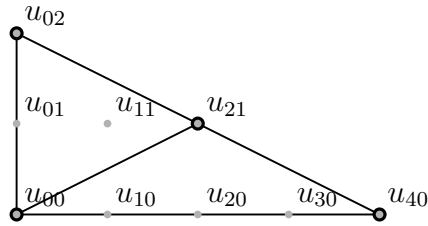
2	2				
1	0	0	6		
0	3	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 2 \cdot u_{21} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{00} + 2 \cdot u_{02} &< 4 \cdot u_{01} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 4 \cdot u_{30} &< 3 \cdot u_{40} + u_{00} \\
 u_{00} + 6 \cdot u_{21} &< 4 \cdot u_{30} + 3 \cdot u_{02}
 \end{aligned}$$

**286. Vertex:**  $(0, 4, 0, 0, 0, 8, 8, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{00} + 6 \cdot u_{21} + 3 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

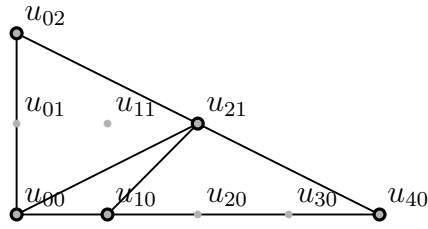
2	2				
1	0	0	6		
0	3	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 2 \cdot u_{21} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{00} + 2 \cdot u_{02} &< 4 \cdot u_{01} \\
 8 \cdot u_{21} &< 4 \cdot u_{40} + 4 \cdot u_{02} \\
 3 \cdot u_{40} + u_{00} &< 4 \cdot u_{30} \\
 u_{40} + 3 \cdot u_{00} &< 4 \cdot u_{10} \\
 2 \cdot u_{40} + 2 \cdot u_{00} &< 4 \cdot u_{20}
 \end{aligned}$$

**287. Vertex:**  $(0, 3, 0, 0, 4, 5, 8, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{00} + 6 \cdot u_{21} + 3 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

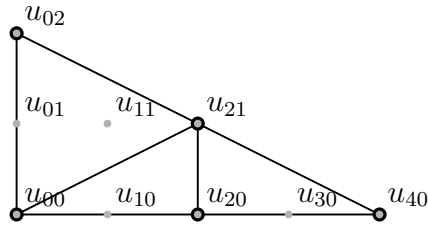
2	2				
1	0	0	6		
0	3	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 2 \cdot u_{21} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{00} + 2 \cdot u_{02} &< 4 \cdot u_{01} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 4 \cdot u_{10} &< u_{40} + 3 \cdot u_{00} \\
 3 \cdot u_{00} + 2 \cdot u_{21} &< 4 \cdot u_{10} + u_{02}
 \end{aligned}$$

**288. Vertex:**  $(0, 2, 0, 4, 0, 6, 8, 0, 4)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $3 \cdot u_{00} + 6 \cdot u_{21} + 3 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

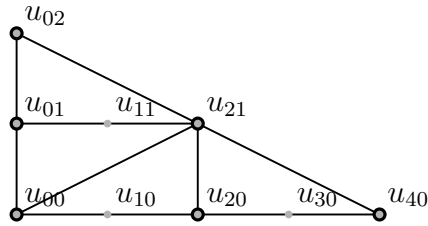
2	2				
1	0	0	6		
0	3	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 u_{00} + 2 \cdot u_{21} + u_{02} &< 4 \cdot u_{11} \\
 2 \cdot u_{00} + 2 \cdot u_{02} &< 4 \cdot u_{01} \\
 2 \cdot u_{00} + 4 \cdot u_{21} &< 4 \cdot u_{20} + 2 \cdot u_{02} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 4 \cdot u_{20} &< 2 \cdot u_{40} + 2 \cdot u_{00}
 \end{aligned}$$

**289. Vertex:**  $(0, 2, 0, 4, 0, 4, 8, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{00} + 6 \cdot u_{21} + 2 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

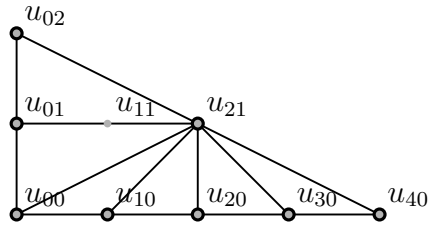
2	1				
1	2	0	6		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{00} + 2 \cdot u_{21} &< 2 \cdot u_{20} + 2 \cdot u_{01} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 4 \cdot u_{20} &< 2 \cdot u_{40} + 2 \cdot u_{00} \\
 4 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{02}
 \end{aligned}$$

**290. Vertex:**  $(0, 1, 2, 2, 2, 3, 8, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{00} + 6 \cdot u_{21} + 2 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

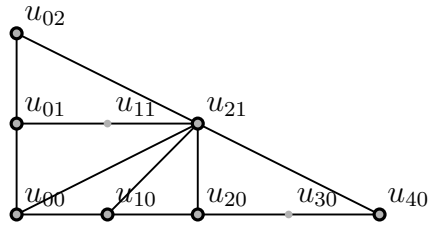
2	1				
1	2	0	6		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 2 \cdot u_{00} + u_{21} &< 2 \cdot u_{10} + u_{01} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 2 \cdot u_{20} &< u_{30} + u_{10} \\
 4 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{02}
 \end{aligned}$$

**291. Vertex:**  $(0, 2, 0, 3, 2, 3, 8, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{00} + 6 \cdot u_{21} + 2 \cdot u_{01} + 2 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

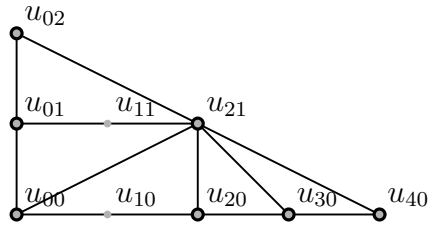
2	1
1	2 0 6
0	2 0 0 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{10} &< u_{20} + u_{00} \\
 u_{40} + u_{20} &< 2 \cdot u_{30} \\
 3 \cdot u_{20} &< u_{40} + 2 \cdot u_{10} \\
 2 \cdot u_{00} + u_{21} &< 2 \cdot u_{10} + u_{01} \\
 4 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{02}
 \end{aligned}$$

## 292. Vertex: $(0, 1, 2, 3, 0, 4, 8, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{00} + 6 \cdot u_{21} + 2 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

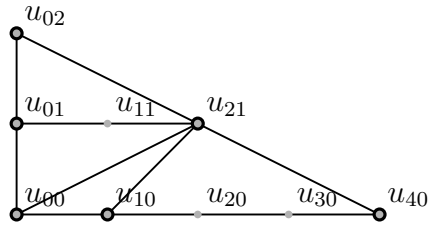
2	1				
1	2	0	6		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{00} + 2 \cdot u_{21} &< 2 \cdot u_{20} + 2 \cdot u_{01} \\
 2 \cdot u_{30} &< u_{40} + u_{20} \\
 u_{20} + u_{00} &< 2 \cdot u_{10} \\
 3 \cdot u_{20} &< 2 \cdot u_{30} + u_{00} \\
 4 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{02}
 \end{aligned}$$

**293. Vertex:**  $(0, 3, 0, 0, 4, 3, 8, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{00} + 6 \cdot u_{21} + 2 \cdot u_{01} + 2 \cdot u_{02}$

2	0
1	0 0 0
0	0 0 0 0 0
$c_T(i, j)$	0 1 2 3 4

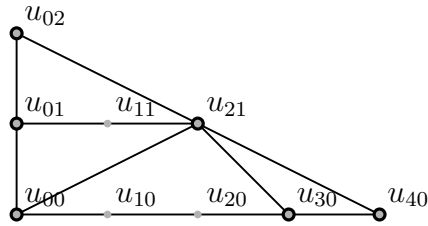
2	1
1	2 0 6
0	2 0 0 0 0
$\eta_T(i, j)$	0 1 2 3 4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{00} + u_{21} &< 2 \cdot u_{10} + u_{01} \\
 u_{40} + 2 \cdot u_{10} &< 3 \cdot u_{20} \\
 4 \cdot u_{10} &< u_{40} + 3 \cdot u_{00} \\
 2 \cdot u_{40} + u_{10} &< 3 \cdot u_{30} \\
 4 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{02}
 \end{aligned}$$

**294. Vertex:**  $(0, 1, 4, 0, 0, 5, 8, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{00} + 6 \cdot u_{21} + 2 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

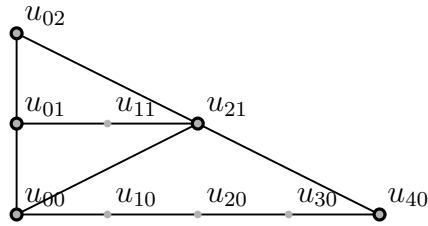
2	1				
1	2	0	6		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{30} + u_{00} &< 3 \cdot u_{20} \\
 4 \cdot u_{30} &< 3 \cdot u_{40} + u_{00} \\
 u_{30} + 2 \cdot u_{00} &< 3 \cdot u_{10} \\
 2 \cdot u_{00} + 3 \cdot u_{21} &< 2 \cdot u_{30} + 3 \cdot u_{01} \\
 4 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{02}
 \end{aligned}$$

**295. Vertex:**  $(0, 4, 0, 0, 0, 6, 8, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{00} + 6 \cdot u_{21} + 2 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

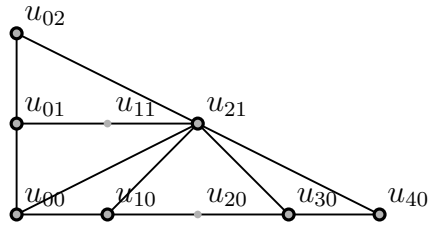
2	1				
1	2	0	6		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 2 \cdot u_{40} + 2 \cdot u_{00} &< 4 \cdot u_{20} \\
 2 \cdot u_{00} + 4 \cdot u_{21} &< 2 \cdot u_{40} + 4 \cdot u_{01} \\
 u_{40} + 3 \cdot u_{00} &< 4 \cdot u_{10} \\
 3 \cdot u_{40} + u_{00} &< 4 \cdot u_{30} \\
 4 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{02}
 \end{aligned}$$

**296. Vertex:**  $(0, 1, 3, 0, 3, 3, 8, 4, 2)$

The marked subdivision of this cone in the secondary fan of a cubic is:



The negative of the cycle length is:  $0$

The generic valuation of  $\Delta$  is:  $2 \cdot u_{00} + 6 \cdot u_{21} + 2 \cdot u_{01} + 2 \cdot u_{02}$

2	0				
1	0	0	0		
0	0	0	0	0	0
$c_T(i, j)$	0	1	2	3	4

2	1				
1	2	0	6		
0	2	0	0	0	0
$\eta_T(i, j)$	0	1	2	3	4

The inequalities describing the cone of the secondary fan dual to the above vertex:

$$\begin{aligned}
 2 \cdot u_{21} + 2 \cdot u_{01} &< 4 \cdot u_{11} \\
 u_{30} + u_{10} &< 2 \cdot u_{20} \\
 3 \cdot u_{30} &< 2 \cdot u_{40} + u_{10} \\
 2 \cdot u_{00} + u_{21} &< 2 \cdot u_{10} + u_{01} \\
 3 \cdot u_{10} &< u_{30} + 2 \cdot u_{00} \\
 4 \cdot u_{01} &< 2 \cdot u_{00} + 2 \cdot u_{02}
 \end{aligned}$$