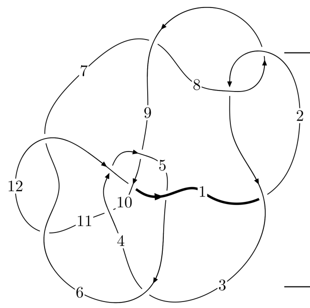
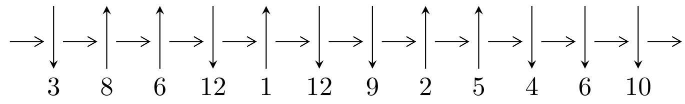
$12n_{0636}$ $(K12n_{0636})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

$$1{,}5 \xrightarrow[c_5]{} 6{,}10 \xrightarrow[c_9]{} 9 \xrightarrow[c_{12}]{} 12 \xrightarrow[c_6]{} 7 \xrightarrow[c_4]{} 4 \xrightarrow[c_3]{} 3 \xrightarrow[c_1]{} 2 \xrightarrow[c_8]{} 8 \xrightarrow[c_{11}]{} 11 \twoheadrightarrow c_2, c_7, c_{10}$$

Ideals for irreducible components[2] of $X_{\mathbf{par}}$

$$\begin{aligned}
I_1^u &= \langle b-u,\ 1.29424\times 10^{29}u^{28} - 4.50885\times 10^{29}u^{27} + \cdots + 1.80747\times 10^{27}a + 2.71900\times 10^{29},\\
&\quad u^{29} - 4u^{28} + \cdots + 41u^2 - 1\rangle\\
I_2^u &= \langle b+u,\ -1.14135\times 10^{17}u^{24} + 9.49047\times 10^{15}u^{23} + \cdots + 2.50582\times 10^{16}a + 3.47140\times 10^{17},\\
&\quad u^{25} + 3u^{23} + \cdots - 4u - 1\rangle\\
I_3^u &= \langle 5.05848\times 10^{26}u^{23} + 1.72101\times 10^{27}u^{22} + \cdots + 1.51027\times 10^{28}b - 1.97809\times 10^{29},\\
&\quad 1.66317\times 10^{24}u^{23} + 5.60162\times 10^{24}u^{22} + \cdots + 2.05980\times 10^{25}a - 6.95407\times 10^{26},\\
&\quad u^{24} + 3u^{23} + \cdots - 916u + 152\rangle\\
I_4^u &= \langle b+1,\ 3u^3 - 8u^2 + 4a + 9u - 5,\ u^4 - 4u^3 + 7u^2 - 7u + 4\rangle\\
I_5^u &= \langle b+1,\ a^4 - 3a^3 + 5a^2 - 3a + 2,\ u+1\rangle\\
I_6^u &= \langle -a^3 - a^2 + b - a - 1,\ a^4 + a^3 + a^2 + 1,\ u+1\rangle
\end{aligned}$$

* 6 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 90 representations.

[1]The image of knot diagram is generated by the software "**Draw programme**" developed by Andrew Bartholomew(`http://www.layer8.co.uk/maths/draw/index.htm#Running-draw`), where we modified some parts for our purpose(`https://github.com/CATsTAILs/LinksPainter`).

[2]All coefficients of polynomials are rational numbers. But the coefficients are sometimes approximated in decimal forms when there is not enough margin.

I. $I_1^u = \langle b - u,\ 1.29 \times 10^{29}u^{28} - 4.51 \times 10^{29}u^{27} + \cdots + 1.81 \times 10^{27}a + 2.72 \times 10^{29},\ u^{29} - 4u^{28} + \cdots + 41u^2 - 1\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -71.6051u^{28} + 249.456u^{27} + \cdots - 223.148u - 150.431 \\ u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -71.6051u^{28} + 249.456u^{27} + \cdots - 224.148u - 150.431 \\ u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -11.9756u^{28} + 39.5117u^{27} + \cdots + 56.9931u - 41.0153 \\ -18.4538u^{28} + 64.5320u^{27} + \cdots - 70.6051u - 36.9640 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 7.86693u^{28} - 25.7993u^{27} + \cdots - 20.9730u + 45.9410 \\ -19.6452u^{28} + 68.7556u^{27} + \cdots - 79.1491u - 38.6368 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -3.16963u^{28} + 10.4056u^{27} + \cdots + 11.0912u - 19.1412 \\ 20.6054u^{28} - 72.0642u^{27} + \cdots + 82.3187u + 40.9096 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -22.8148u^{28} + 79.1613u^{27} + \cdots - 68.0578u - 57.7779 \\ 25.5368u^{28} - 89.2904u^{27} + \cdots + 101.964u + 50.7349 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 28.1973u^{28} - 97.3373u^{27} + \cdots + 82.3877u + 69.1927 \\ -18.7535u^{28} + 65.8134u^{27} + \cdots - 77.9114u - 37.4792 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -36.1766u^{28} + 127.011u^{27} + \cdots - 157.595u - 62.5413 \\ -25.5368u^{28} + 89.2904u^{27} + \cdots - 101.964u - 50.7349 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -34.4315u^{28} + 118.013u^{27} + \cdots - 25.5876u - 86.3700 \\ -12.7801u^{28} + 44.6947u^{27} + \cdots - 48.1492u - 25.6417 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -362.367u^{28} + 1266.86u^{27} + \cdots - 1402.63u - 756.448$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{29} + 8u^{28} + \cdots + 160u - 64$
c_2, c_8	$u^{29} + 8u^{28} + \cdots + 16u + 8$
c_3	$u^{29} + 15u^{28} + \cdots + 496u + 64$
c_4	$u^{29} + 2u^{28} + \cdots + 5u + 13$
c_5, c_9	$u^{29} + 4u^{28} + \cdots - 41u^2 + 1$
c_6, c_{10}, c_{11}	$u^{29} + 24u^{27} + \cdots + 5u + 1$
c_{12}	$u^{29} - 13u^{28} + \cdots - 100u + 8$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{29} + 24y^{28} + \cdots + 94720y - 4096$
c_2, c_8	$y^{29} + 8y^{28} + \cdots + 160y - 64$
c_3	$y^{29} - 35y^{28} + \cdots + 24832y - 4096$
c_4	$y^{29} + 30y^{28} + \cdots - 1041y - 169$
c_5, c_9	$y^{29} - 20y^{28} + \cdots + 82y - 1$
c_6, c_{10}, c_{11}	$y^{29} + 48y^{28} + \cdots - 15y - 1$
c_{12}	$y^{29} - 3y^{28} + \cdots - 560y - 64$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.960292 + 0.114322I$ $a = -0.295102 - 0.789708I$ $b = 0.960292 + 0.114322I$	$4.26314 + 5.68742I$	$0.21225 - 6.40052I$
$u = 0.960292 - 0.114322I$ $a = -0.295102 + 0.789708I$ $b = 0.960292 - 0.114322I$	$4.26314 - 5.68742I$	$0.21225 + 6.40052I$
$u = -0.800224 + 0.473422I$ $a = -0.020933 + 0.683003I$ $b = -0.800224 + 0.473422I$	$1.38041 - 0.94269I$	$4.60342 + 1.76965I$
$u = -0.800224 - 0.473422I$ $a = -0.020933 - 0.683003I$ $b = -0.800224 - 0.473422I$	$1.38041 + 0.94269I$	$4.60342 - 1.76965I$
$u = 0.214505 + 0.830763I$ $a = 0.085940 + 0.697105I$ $b = 0.214505 + 0.830763I$	$-0.18552 - 2.10133I$	$-2.36676 + 3.80844I$
$u = 0.214505 - 0.830763I$ $a = 0.085940 - 0.697105I$ $b = 0.214505 - 0.830763I$	$-0.18552 + 2.10133I$	$-2.36676 - 3.80844I$
$u = 0.834842 + 0.841974I$ $a = 0.065712 + 0.604077I$ $b = 0.834842 + 0.841974I$	$-2.03034 + 3.15669I$	$-2.00000 - 3.13089I$
$u = 0.834842 - 0.841974I$ $a = 0.065712 - 0.604077I$ $b = 0.834842 - 0.841974I$	$-2.03034 - 3.15669I$	$-2.00000 + 3.13089I$
$u = -1.170000 + 0.647600I$ $a = 0.207159 + 1.203770I$ $b = -1.170000 + 0.647600I$	$5.63179 - 9.07757I$	0
$u = -1.170000 - 0.647600I$ $a = 0.207159 - 1.203770I$ $b = -1.170000 - 0.647600I$	$5.63179 + 9.07757I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.322730 + 0.290095I$ $a = -0.615161 + 1.063240I$ $b = 1.322730 + 0.290095I$	$9.61338 + 4.40602I$	0
$u = 1.322730 - 0.290095I$ $a = -0.615161 - 1.063240I$ $b = 1.322730 - 0.290095I$	$9.61338 - 4.40602I$	0
$u = -1.151990 + 0.728821I$ $a = 0.002396 + 0.567381I$ $b = -1.151990 + 0.728821I$	$4.32796 - 2.63394I$	0
$u = -1.151990 - 0.728821I$ $a = 0.002396 - 0.567381I$ $b = -1.151990 - 0.728821I$	$4.32796 + 2.63394I$	0
$u = -1.171900 + 0.729482I$ $a = 1.156260 - 0.116734I$ $b = -1.171900 + 0.729482I$	$12.9658 - 7.6542I$	0
$u = -1.171900 - 0.729482I$ $a = 1.156260 + 0.116734I$ $b = -1.171900 - 0.729482I$	$12.9658 + 7.6542I$	0
$u = 1.29794 + 0.56457I$ $a = -1.101150 - 0.319489I$ $b = 1.29794 + 0.56457I$	$14.08170 + 0.96061I$	0
$u = 1.29794 - 0.56457I$ $a = -1.101150 + 0.319489I$ $b = 1.29794 - 0.56457I$	$14.08170 - 0.96061I$	0
$u = 1.16421 + 0.82395I$ $a = 0.013535 + 0.551844I$ $b = 1.16421 + 0.82395I$	$3.49095 + 8.40992I$	0
$u = 1.16421 - 0.82395I$ $a = 0.013535 - 0.551844I$ $b = 1.16421 - 0.82395I$	$3.49095 - 8.40992I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.498483 + 0.001453I$ $a = 0.228167 - 1.207220I$ $b = 0.498483 + 0.001453I$	$-0.76521 + 1.33560I$	$-4.03541 - 5.87673I$
$u = 0.498483 - 0.001453I$ $a = 0.228167 + 1.207220I$ $b = 0.498483 - 0.001453I$	$-0.76521 - 1.33560I$	$-4.03541 + 5.87673I$
$u = 0.233111$ $a = 5.33841$ $b = 0.233111$	-1.74928	-9.97660
$u = -0.179695 + 0.046426I$ $a = -8.32456 - 5.44841I$ $b = -0.179695 + 0.046426I$	$-5.01406 - 4.22563I$	$-16.2179 - 14.6298I$
$u = -0.179695 - 0.046426I$ $a = -8.32456 + 5.44841I$ $b = -0.179695 - 0.046426I$	$-5.01406 + 4.22563I$	$-16.2179 + 14.6298I$
$u = 1.60072 + 0.97916I$ $a = -0.124611 + 0.805147I$ $b = 1.60072 + 0.97916I$	$14.8695 + 9.1201I$	0
$u = 1.60072 - 0.97916I$ $a = -0.124611 - 0.805147I$ $b = 1.60072 - 0.97916I$	$14.8695 - 9.1201I$	0
$u = -1.53648 + 1.11077I$ $a = 0.053142 + 0.796682I$ $b = -1.53648 + 1.11077I$	$13.9120 - 15.6954I$	0
$u = -1.53648 - 1.11077I$ $a = 0.053142 - 0.796682I$ $b = -1.53648 - 1.11077I$	$13.9120 + 15.6954I$	0

II. $I^u_2 = \langle b+u,\ -1.14\times10^{17}u^{24} + 9.49\times10^{15}u^{23} + \cdots + 2.51\times10^{16}a + 3.47\times10^{17},\ u^{25} + 3u^{23} + \cdots - 4u - 1\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix}0\\u\end{pmatrix}$$
$$a_5 = \begin{pmatrix}1\\0\end{pmatrix}$$
$$a_6 = \begin{pmatrix}1\\-u^2\end{pmatrix}$$
$$a_{10} = \begin{pmatrix}4.55481u^{24} - 0.378737u^{23} + \cdots - 23.2828u - 13.8534\\-u\end{pmatrix}$$
$$a_9 = \begin{pmatrix}4.55481u^{24} - 0.378737u^{23} + \cdots - 22.2828u - 13.8534\\-u\end{pmatrix}$$
$$a_{12} = \begin{pmatrix}11.3465u^{24} - 3.75211u^{23} + \cdots - 53.6177u - 24.6474\\0.463760u^{24} - 0.563270u^{23} + \cdots - 2.03987u + 0.378737\end{pmatrix}$$
$$a_7 = \begin{pmatrix}-13.8534u^{24} + 4.55481u^{23} + \cdots + 73.9510u + 33.1307\\-0.127690u^{24} - 0.228930u^{23} + \cdots + 1.62932u + 0.250675\end{pmatrix}$$
$$a_4 = \begin{pmatrix}-3.62126u^{24} + 1.46376u^{23} + \cdots + 17.6341u + 9.44519\\0.690960u^{24} - 0.0116943u^{23} + \cdots - 3.86310u - 1.71443\end{pmatrix}$$
$$a_3 = \begin{pmatrix}-3.74895u^{24} + 1.23483u^{23} + \cdots + 19.2634u + 9.69586\\0.388246u^{24} + 0.192434u^{23} + \cdots - 2.81969u - 1.48550\end{pmatrix}$$
$$a_2 = \begin{pmatrix}-6.66089u^{24} + 2.95614u^{23} + \cdots + 33.1139u + 11.4051\\0.871238u^{24} - 0.115442u^{23} + \cdots - 3.96879u - 1.75674\end{pmatrix}$$
$$a_8 = \begin{pmatrix}-2.92829u^{24} + 0.509793u^{23} + \cdots + 17.3146u + 9.64795\\-0.388246u^{24} - 0.192434u^{23} + \cdots + 2.81969u + 1.48550\end{pmatrix}$$
$$a_{11} = \begin{pmatrix}12.5972u^{24} - 3.87980u^{23} + \cdots - 59.3194u - 28.0208\\0.692691u^{24} - 0.865985u^{23} + \cdots - 2.77978u + 0.506427\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $=$
$-\frac{141347430048502710}{4176363078274867}u^{24} + \frac{49486291278266828}{4176363078274867}u^{23} + \cdots + \frac{739293424200395475}{4176363078274867}u + \frac{319470269701535049}{4176363078274867}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^{25} - 10u^{24} + \cdots - 44u + 4$
c_2	$u^{25} + 5u^{23} + \cdots + 11u^2 + 2$
c_3	$u^{25} + 19u^{24} + \cdots - 21u + 41$
c_4	$u^{25} - u^{24} + \cdots - 17u^2 + 2$
c_5, c_9	$u^{25} + 3u^{23} + \cdots - 4u - 1$
c_6, c_{10}	$u^{25} + 7u^{23} + \cdots - u - 1$
c_8	$u^{25} + 5u^{23} + \cdots - 11u^2 - 2$
c_{11}	$u^{25} + 7u^{23} + \cdots - u + 1$
c_{12}	$u^{25} + 11u^{24} + \cdots - 7u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^{25} + 18y^{24} + \cdots - 24y - 16$
c_2, c_8	$y^{25} + 10y^{24} + \cdots - 44y - 4$
c_3	$y^{25} - 35y^{24} + \cdots + 70715y - 1681$
c_4	$y^{25} + 11y^{24} + \cdots + 68y - 4$
c_5, c_9	$y^{25} + 6y^{24} + \cdots + 10y - 1$
c_6, c_{10}, c_{11}	$y^{25} + 14y^{24} + \cdots + 17y - 1$
c_{12}	$y^{25} - 3y^{24} + \cdots + 14y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.796080 + 0.645844I$ $a = -0.596796 - 0.240010I$ $b = -0.796080 - 0.645844I$	$4.84322 - 2.05050I$	$0.28599 - 1.48631I$
$u = 0.796080 - 0.645844I$ $a = -0.596796 + 0.240010I$ $b = -0.796080 + 0.645844I$	$4.84322 + 2.05050I$	$0.28599 + 1.48631I$
$u = 0.296077 + 0.914388I$ $a = -0.699710 - 1.211640I$ $b = -0.296077 - 0.914388I$	$-2.56141 + 2.33620I$	$-10.59682 - 7.19824I$
$u = 0.296077 - 0.914388I$ $a = -0.699710 + 1.211640I$ $b = -0.296077 + 0.914388I$	$-2.56141 - 2.33620I$	$-10.59682 + 7.19824I$
$u = 0.922082 + 0.228189I$ $a = -0.381519 - 0.872909I$ $b = -0.922082 - 0.228189I$	$6.61274 - 0.16294I$	$8.10933 + 0.42456I$
$u = 0.922082 - 0.228189I$ $a = -0.381519 + 0.872909I$ $b = -0.922082 + 0.228189I$	$6.61274 + 0.16294I$	$8.10933 - 0.42456I$
$u = -0.809953 + 0.096839I$ $a = 0.363322 - 1.250440I$ $b = 0.809953 - 0.096839I$	$5.86968 + 5.30210I$	$5.18661 - 5.91989I$
$u = -0.809953 - 0.096839I$ $a = 0.363322 + 1.250440I$ $b = 0.809953 + 0.096839I$	$5.86968 - 5.30210I$	$5.18661 + 5.91989I$
$u = -0.687921 + 1.038030I$ $a = 0.174351 - 0.908552I$ $b = 0.687921 - 1.038030I$	$-3.20695 - 4.09541I$	$-9.54085 + 4.81505I$
$u = -0.687921 - 1.038030I$ $a = 0.174351 + 0.908552I$ $b = 0.687921 + 1.038030I$	$-3.20695 + 4.09541I$	$-9.54085 - 4.81505I$

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.115530 + 0.661232I$ $a = 0.315105 - 0.652823I$ $b = -1.115530 - 0.661232I$	$3.30766 + 2.48097I$	$-1.93779 - 1.88948I$
$u = 1.115530 - 0.661232I$ $a = 0.315105 + 0.652823I$ $b = -1.115530 + 0.661232I$	$3.30766 - 2.48097I$	$-1.93779 + 1.88948I$
$u = 0.343736 + 1.273220I$ $a = -0.539488 - 0.735855I$ $b = -0.343736 - 1.273220I$	$-0.22260 + 5.42341I$	$0.75618 - 6.73991I$
$u = 0.343736 - 1.273220I$ $a = -0.539488 + 0.735855I$ $b = -0.343736 + 1.273220I$	$-0.22260 - 5.42341I$	$0.75618 + 6.73991I$
$u = 0.675230$ $a = 2.07673$ $b = -0.675230$	-1.26232	7.41310
$u = -1.125130 + 0.793831I$ $a = -0.199464 - 0.663668I$ $b = 1.125130 - 0.793831I$	$2.60794 - 8.42230I$	$-4.02327 + 7.25592I$
$u = -1.125130 - 0.793831I$ $a = -0.199464 + 0.663668I$ $b = 1.125130 + 0.793831I$	$2.60794 + 8.42230I$	$-4.02327 - 7.25592I$
$u = -0.454409 + 1.305940I$ $a = 0.440942 - 0.724830I$ $b = 0.454409 - 1.305940I$	$-0.334771 - 0.254683I$	$0.594711 - 0.383137I$
$u = -0.454409 - 1.305940I$ $a = 0.440942 + 0.724830I$ $b = 0.454409 + 1.305940I$	$-0.334771 + 0.254683I$	$0.594711 + 0.383137I$
$u = -0.440390 + 0.366580I$ $a = 1.96302 - 0.28081I$ $b = 0.440390 - 0.366580I$	$3.32428 - 0.29299I$	$-4.35678 + 0.94699I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.440390 - 0.366580I$ $a = 1.96302 + 0.28081I$ $b = 0.440390 + 0.366580I$	$3.32428 + 0.29299I$	$-4.35678 - 0.94699I$
$u = 0.11956 + 1.47573I$ $a = -0.042858 + 0.212628I$ $b = -0.11956 - 1.47573I$	$11.63180 - 3.18462I$	$3.10708 + 2.38160I$
$u = 0.11956 - 1.47573I$ $a = -0.042858 - 0.212628I$ $b = -0.11956 + 1.47573I$	$11.63180 + 3.18462I$	$3.10708 - 2.38160I$
$u = -0.412870 + 0.210392I$ $a = -2.83528 - 2.84508I$ $b = 0.412870 - 0.210392I$	$-4.92153 - 4.38703I$	$5.2090 + 22.1333I$
$u = -0.412870 - 0.210392I$ $a = -2.83528 + 2.84508I$ $b = 0.412870 + 0.210392I$	$-4.92153 + 4.38703I$	$5.2090 - 22.1333I$

III. $I_3^u =$ $\langle 5.06\times10^{26}u^{23}+1.72\times10^{27}u^{22}+\cdots+1.51\times10^{28}b-1.98\times10^{29},\ 1.66\times10^{24}u^{23}+5.60\times10^{24}u^{22}+\cdots+2.06\times10^{25}a-6.95\times10^{26},\ u^{24}+3u^{23}+\cdots-916u+152\rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.0807441u^{23} - 0.271949u^{22} + \cdots - 112.103u + 33.7608 \\ -0.0334939u^{23} - 0.113953u^{22} + \cdots - 45.6844u + 13.0976 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.0472503u^{23} - 0.157996u^{22} + \cdots - 66.4189u + 20.6632 \\ -0.0334939u^{23} - 0.113953u^{22} + \cdots - 45.6844u + 13.0976 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.0635809u^{23} + 0.212954u^{22} + \cdots + 87.2711u - 27.6880 \\ 0.0521176u^{23} + 0.175261u^{22} + \cdots + 72.2476u - 22.1390 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.0561598u^{23} - 0.189820u^{22} + \cdots - 76.9321u + 22.8112 \\ 0.0172861u^{23} + 0.0557112u^{22} + \cdots + 25.6034u - 9.48966 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.0388737u^{23} + 0.134109u^{22} + \cdots + 51.3287u - 13.3215 \\ -0.0250608u^{23} - 0.0822551u^{22} + \cdots - 35.7136u + 12.1478 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 0.0561598u^{23} + 0.189820u^{22} + \cdots + 76.9321u - 22.8112 \\ -0.0254832u^{23} - 0.0841583u^{22} + \cdots - 36.6152u + 12.7335 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.0472503u^{23} - 0.157996u^{22} + \cdots - 66.4189u + 20.6632 \\ -0.0278389u^{23} - 0.0949127u^{22} + \cdots - 35.9862u + 10.6284 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.0719550u^{23} - 0.242039u^{22} + \cdots - 98.3636u + 29.8284 \\ -0.0227300u^{23} - 0.0785800u^{22} + \cdots - 30.8874u + 7.99453 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 0.123958u^{23} + 0.415686u^{22} + \cdots + 170.200u - 53.2032 \\ 0.0437678u^{23} + 0.146509u^{22} + \cdots + 61.6377u - 18.8555 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= \frac{789409549397297077238438255}{1887837650177179023809147344}u^{23} + \frac{5345499614610035395715935423}{3775675300354358047618294688}u^{22} + \cdots + \frac{534181212237586784175387060335}{943918825088589511904573672}u - \frac{81677490050712823192860035961}{471959412544294755952286836}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$(u^4+u^3+3u^2+2u+1)^6$
c_2, c_8	$(u^4-u^3+u^2+1)^6$
c_3	$(u^4-3u^3+u^2+2u+1)^6$
c_4	$u^{24}-5u^{23}+\cdots-19608u+4792$
c_5, c_9	$u^{24}-3u^{23}+\cdots+916u+152$
c_6, c_{10}, c_{11}	$u^{24}-6u^{23}+\cdots-2820u+421$
c_{12}	$(u^4+u^3+u^2+1)^6$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$(y^4+5y^3+7y^2+2y+1)^6$
c_2, c_8, c_{12}	$(y^4+y^3+3y^2+2y+1)^6$
c_3	$(y^4-7y^3+15y^2-2y+1)^6$
c_4	$y^{24}+13y^{23}+\cdots+10329632y+22963264$
c_5, c_9	$y^{24}+9y^{23}+\cdots-295504y+23104$
c_6, c_{10}, c_{11}	$y^{24}+34y^{23}+\cdots-101592y+177241$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.451653 + 0.937171I$ $a = -0.433636 - 1.117900I$ $b = -0.128858 - 0.863491I$	$-2.06694 + 1.74886I$	$-1.65348 + 2.34394I$
$u = 0.451653 - 0.937171I$ $a = -0.433636 + 1.117900I$ $b = -0.128858 + 0.863491I$	$-2.06694 - 1.74886I$	$-1.65348 - 2.34394I$
$u = 0.727252 + 0.755470I$ $a = 0.262219 + 0.718105I$ $b = -1.54826 + 2.15106I$	$11.93650 + 4.57907I$	$5.65348 - 7.47354I$
$u = 0.727252 - 0.755470I$ $a = 0.262219 - 0.718105I$ $b = -1.54826 - 2.15106I$	$11.93650 - 4.57907I$	$5.65348 + 7.47354I$
$u = 0.607909 + 0.908003I$ $a = -0.259320 - 1.111730I$ $b = -0.615212 - 1.239020I$	$-2.06694 + 4.57907I$	$-1.65348 - 7.47354I$
$u = 0.607909 - 0.908003I$ $a = -0.259320 + 1.111730I$ $b = -0.615212 + 1.239020I$	$-2.06694 - 4.57907I$	$-1.65348 + 7.47354I$
$u = 1.097460 + 0.195307I$ $a = 0.609099 - 0.938762I$ $b = -1.56114 - 0.84926I$	$4.93480 + 6.32793I$	$2.00000 - 5.12960I$
$u = 1.097460 - 0.195307I$ $a = 0.609099 + 0.938762I$ $b = -1.56114 + 0.84926I$	$4.93480 - 6.32793I$	$2.00000 + 5.12960I$
$u = -0.867738 + 0.717770I$ $a = -0.166984 + 0.692013I$ $b = 1.29037 + 2.27278I$	$11.93650 + 1.74886I$	$5.65348 + 2.34394I$
$u = -0.867738 - 0.717770I$ $a = -0.166984 - 0.692013I$ $b = 1.29037 - 2.27278I$	$11.93650 - 1.74886I$	$5.65348 - 2.34394I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.128858+0.863491I$ $a=\quad 0.88836-1.11904I$ $b=\quad 0.451653-0.937171I$	$-2.06694-1.74886I$	$-1.65348-2.34394I$
$u=-0.128858-0.863491I$ $a=\quad 0.88836+1.11904I$ $b=\quad 0.451653+0.937171I$	$-2.06694+1.74886I$	$-1.65348+2.34394I$
$u=-0.615212+1.239020I$ $a=\quad 0.316184-0.844481I$ $b=\quad 0.607909-0.908003I$	$-2.06694-4.57907I$	$-1.65348+7.47354I$
$u=-0.615212-1.239020I$ $a=\quad 0.316184+0.844481I$ $b=\quad 0.607909+0.908003I$	$-2.06694+4.57907I$	$-1.65348-7.47354I$
$u=-1.31086+0.82372I$ $a=\quad 0.439962-0.273053I$ $b=\quad 0.357423-0.019370I$	$4.93480+2.83021I$	$2.00000-9.81749I$
$u=-1.31086-0.82372I$ $a=\quad 0.439962+0.273053I$ $b=\quad 0.357423+0.019370I$	$4.93480-2.83021I$	$2.00000+9.81749I$
$u=\quad 0.357423+0.019370I$ $a=-1.09031-1.95629I$ $b=-1.31086-0.82372I$	$4.93480-2.83021I$	$2.00000+9.81749I$
$u=\quad 0.357423-0.019370I$ $a=-1.09031+1.95629I$ $b=-1.31086+0.82372I$	$4.93480+2.83021I$	$2.00000-9.81749I$
$u=-1.56114+0.84926I$ $a=-0.175996-0.679476I$ $b=\quad 1.097460-0.195307I$	$4.93480-6.32793I$	$2.00000+5.12960I$
$u=-1.56114-0.84926I$ $a=-0.175996+0.679476I$ $b=\quad 1.097460+0.195307I$	$4.93480+6.32793I$	$2.00000-5.12960I$

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.29037 + 2.27278I$ $a = -0.306144 - 0.019022I$ $b = -0.867738 + 0.717770I$	$11.93650 + 1.74886I$	0
$u = 1.29037 - 2.27278I$ $a = -0.306144 + 0.019022I$ $b = -0.867738 - 0.717770I$	$11.93650 - 1.74886I$	0
$u = -1.54826 + 2.15106I$ $a = 0.298140 - 0.051040I$ $b = 0.727252 + 0.755470I$	$11.93650 + 4.57907I$	0
$u = -1.54826 - 2.15106I$ $a = 0.298140 + 0.051040I$ $b = 0.727252 - 0.755470I$	$11.93650 - 4.57907I$	0

IV. $\boldsymbol{I_4^u = \langle b+1,\ 3u^3 - 8u^2 + 4a + 9u - 5,\ u^4 - 4u^3 + 7u^2 - 7u + 4\rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -\frac{3}{4}u^3 + 2u^2 - \frac{9}{4}u + \frac{5}{4} \\ -1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -\frac{3}{4}u^3 + 2u^2 - \frac{9}{4}u + \frac{9}{4} \\ -1 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -\frac{1}{4}u^3 + \frac{1}{4}u - \frac{1}{4} \\ u^3 - 3u^2 + 5u - 3 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -\frac{1}{4}u^3 + \frac{1}{4}u - \frac{1}{4} \\ -u^3 + 3u^2 - 3u + 1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} \frac{5}{4}u^3 - 3u^2 + \frac{11}{4}u - \frac{3}{4} \\ -u^3 + 3u^2 - 6u + 7 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} \frac{1}{4}u^3 - \frac{1}{4}u + \frac{1}{4} \\ -u^3 + 2u^2 - 3u + 3 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -\frac{3}{4}u^3 + 2u^2 - \frac{9}{4}u + \frac{9}{4} \\ u^3 - 4u^2 + 6u - 5 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} \frac{1}{2}u^3 - u^2 + \frac{3}{2}u - \frac{1}{2} \\ -2u^3 + 5u^2 - 5u + 2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -\frac{5}{4}u^3 + 2u^2 - \frac{3}{4}u + \frac{3}{4} \\ 3u^3 - 11u^2 + 15u - 11 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^4 + u^3 + 3u^2 + 2u + 1$
c_2, c_8	$u^4 - u^3 + u^2 + 1$
c_3	$u^4 - 3u^3 + u^2 + 2u + 1$
c_4	$u^4 + 3u^3 + 9u^2 + 10u + 11$
c_5	$u^4 + 4u^3 + 7u^2 + 7u + 4$
c_6, c_{11}	$u^4 + 3u^3 + 6u^2 + 8u + 8$
c_9	$(u - 1)^4$
c_{10}	$u^4 + 2u^3 + 3u^2 + 3u + 2$
c_{12}	$u^4 + u^3 + u^2 + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^4 + 5y^3 + 7y^2 + 2y + 1$
c_2, c_8, c_{12}	$y^4 + y^3 + 3y^2 + 2y + 1$
c_3	$y^4 - 7y^3 + 15y^2 - 2y + 1$
c_4	$y^4 + 9y^3 + 43y^2 + 98y + 121$
c_5	$y^4 - 2y^3 + y^2 + 7y + 16$
c_6, c_{11}	$y^4 + 3y^3 + 4y^2 + 32y + 64$
c_9	$(y - 1)^4$
c_{10}	$y^4 + 2y^3 + y^2 + 3y + 4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = \quad 0.452576 + 1.120870I$ $a = -0.661541 + 0.046758I$ $b = -1.00000$	4.93480	2.00000
$u = \quad 0.452576 - 1.120870I$ $a = -0.661541 - 0.046758I$ $b = -1.00000$	4.93480	2.00000
$u = \quad 1.54742 + 0.58565I$ $a = \quad 0.286541 - 0.697356I$ $b = -1.00000$	4.93480	2.00000
$u = \quad 1.54742 - 0.58565I$ $a = \quad 0.286541 + 0.697356I$ $b = -1.00000$	4.93480	2.00000

V. $\boldsymbol{I^u_5 = \langle b+1,\ a^4-3a^3+5a^2-3a+2,\ u+1\rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} a \\ -1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} a+1 \\ -1 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -a^2 \\ a-1 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 2a^3-4a^2+3a-1 \\ -a^3+2a^2-2a \end{pmatrix}$$
$$a_4 = \begin{pmatrix} a^3-a^2+1 \\ -a^2+2a-1 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} a^2-2a+1 \\ a^3-3a^2+4a-1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -a^3+a^2-a-1 \\ a^2-2a+2 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} a^3-3a^2+4a-2 \\ -a^3+3a^2-4a+1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -2a^2+a-1 \\ a^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^4 + 3u^3 + 4u^2 + 4u + 4$
c_2, c_8	$u^4 + u^3 + 2u^2 + 2u + 2$
c_3	$u^4 + u^3 - 3u^2 - u + 4$
c_4	$u^4 - u^3 + 2u^2 - 2u + 2$
c_5, c_9	$(u - 1)^4$
c_6, c_{10}, c_{11}	$u^4 + 4u^2 - 2u + 1$
c_{12}	$u^4 - 3u^3 + 5u^2 - 3u + 2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^4 - y^3 + 16y + 16$
c_2, c_4, c_8	$y^4 + 3y^3 + 4y^2 + 4y + 4$
c_3	$y^4 - 7y^3 + 19y^2 - 25y + 16$
c_5, c_9	$(y-1)^4$
c_6, c_{10}, c_{11}	$y^4 + 8y^3 + 18y^2 + 4y + 1$
c_{12}	$y^4 + y^3 + 11y^2 + 11y + 4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_5^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = \quad 0.219104 + 0.751390I$ $b = -1.00000$	4.93480	2.00000
$u = -1.00000$ $a = \quad 0.219104 - 0.751390I$ $b = -1.00000$	4.93480	2.00000
$u = -1.00000$ $a = \quad 1.28090 + 1.27441I$ $b = -1.00000$	4.93480	2.00000
$u = -1.00000$ $a = \quad 1.28090 - 1.27441I$ $b = -1.00000$	4.93480	2.00000

VI. $I_6^u = \langle -a^3 - a^2 + b - a - 1,\ a^4 + a^3 + a^2 + 1,\ u + 1 \rangle$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ -1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} a \\ a^3 + a^2 + a + 1 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -a^3 - a^2 - 1 \\ a^3 + a^2 + a + 1 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} -a^2 \\ -a \end{pmatrix}$$
$$a_7 = \begin{pmatrix} -a^2 \\ a^3 + a^2 - 1 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -a^3 + 1 \\ -a^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} a^2 \\ -a^3 - 2a^2 + 1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -a^3 - a^2 - 1 \\ 2a^3 + 2a^2 + a \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -a^3 - a \\ a^3 + a - 1 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} -2a^2 - a \\ a^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_7	$u^4 + u^3 + 3u^2 + 2u + 1$
c_2, c_8	$u^4 - u^3 + u^2 + 1$
c_3	$u^4 - 3u^3 + u^2 + 2u + 1$
c_4, c_{12}	$u^4 + u^3 + u^2 + 1$
c_5	$(u-1)^4$
c_6, c_{11}	$u^4 + 2u^3 + 3u^2 + 3u + 2$
c_9	$u^4 + 4u^3 + 7u^2 + 7u + 4$
c_{10}	$u^4 + 3u^3 + 6u^2 + 8u + 8$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_7	$y^4 + 5y^3 + 7y^2 + 2y + 1$
c_2, c_4, c_8 c_{12}	$y^4 + y^3 + 3y^2 + 2y + 1$
c_3	$y^4 - 7y^3 + 15y^2 - 2y + 1$
c_5	$(y-1)^4$
c_6, c_{11}	$y^4 + 2y^3 + y^2 + 3y + 4$
c_9	$y^4 - 2y^3 + y^2 + 7y + 16$
c_{10}	$y^4 + 3y^3 + 4y^2 + 32y + 64$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_6^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = 0.351808 + 0.720342I$ $b = 0.452576 + 1.120870I$	4.93480	2.00000
$u = -1.00000$ $a = 0.351808 - 0.720342I$ $b = 0.452576 - 1.120870I$	4.93480	2.00000
$u = -1.00000$ $a = -0.851808 + 0.911292I$ $b = 1.54742 + 0.58565I$	4.93480	2.00000
$u = -1.00000$ $a = -0.851808 - 0.911292I$ $b = 1.54742 - 0.58565I$	4.93480	2.00000

VII. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_7	$(u^4+u^3+3u^2+2u+1)^8(u^4+3u^3+4u^2+4u+4)$ $\cdot(u^{25}-10u^{24}+\cdots-44u+4)(u^{29}+8u^{28}+\cdots+160u-64)$
c_2	$((u^4-u^3+u^2+1)^8)(u^4+u^3+2u^2+2u+2)(u^{25}+5u^{23}+\cdots+11u^2+2)$ $\cdot(u^{29}+8u^{28}+\cdots+16u+8)$
c_3	$(u^4-3u^3+u^2+2u+1)^8(u^4+u^3-3u^2-u+4)$ $\cdot(u^{25}+19u^{24}+\cdots-21u+41)(u^{29}+15u^{28}+\cdots+496u+64)$
c_4	$(u^4-u^3+2u^2-2u+2)(u^4+u^3+u^2+1)(u^4+3u^3+\cdots+10u+11)$ $\cdot(u^{24}-5u^{23}+\cdots-19608u+4792)(u^{25}-u^{24}+\cdots-17u^2+2)$ $\cdot(u^{29}+2u^{28}+\cdots+5u+13)$
c_5, c_9	$((u-1)^8)(u^4+4u^3+\cdots+7u+4)(u^{24}-3u^{23}+\cdots+916u+152)$ $\cdot(u^{25}+3u^{23}+\cdots-4u-1)(u^{29}+4u^{28}+\cdots-41u^2+1)$
c_6, c_{10}	$(u^4+4u^2-2u+1)(u^4+2u^3+\cdots+3u+2)(u^4+3u^3+\cdots+8u+8)$ $\cdot(u^{24}-6u^{23}+\cdots-2820u+421)(u^{25}+7u^{23}+\cdots-u-1)$ $\cdot(u^{29}+24u^{27}+\cdots+5u+1)$
c_8	$((u^4-u^3+u^2+1)^8)(u^4+u^3+2u^2+2u+2)(u^{25}+5u^{23}+\cdots-11u^2-2)$ $\cdot(u^{29}+8u^{28}+\cdots+16u+8)$
c_{11}	$(u^4+4u^2-2u+1)(u^4+2u^3+\cdots+3u+2)(u^4+3u^3+\cdots+8u+8)$ $\cdot(u^{24}-6u^{23}+\cdots-2820u+421)(u^{25}+7u^{23}+\cdots-u+1)$ $\cdot(u^{29}+24u^{27}+\cdots+5u+1)$
c_{12}	$(u^4-3u^3+\cdots-3u+2)(u^4+u^3+u^2+1)^8(u^{25}+11u^{24}+\cdots-7u^2+1)$ $\cdot(u^{29}-13u^{28}+\cdots-100u+8)$

VIII. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_7	$(y^4 - y^3 + 16y + 16)(y^4 + 5y^3 + 7y^2 + 2y + 1)^8$ $\cdot (y^{25} + 18y^{24} + \cdots - 24y - 16)(y^{29} + 24y^{28} + \cdots + 94720y - 4096)$
c_2, c_8	$(y^4 + y^3 + 3y^2 + 2y + 1)^8(y^4 + 3y^3 + 4y^2 + 4y + 4)$ $\cdot (y^{25} + 10y^{24} + \cdots - 44y - 4)(y^{29} + 8y^{28} + \cdots + 160y - 64)$
c_3	$(y^4 - 7y^3 + 15y^2 - 2y + 1)^8(y^4 - 7y^3 + 19y^2 - 25y + 16)$ $\cdot (y^{25} - 35y^{24} + \cdots + 70715y - 1681)$ $\cdot (y^{29} - 35y^{28} + \cdots + 24832y - 4096)$
c_4	$(y^4 + y^3 + 3y^2 + 2y + 1)(y^4 + 3y^3 + 4y^2 + 4y + 4)$ $\cdot (y^4 + 9y^3 + 43y^2 + 98y + 121)$ $\cdot (y^{24} + 13y^{23} + \cdots + 10329632y + 22963264)$ $\cdot (y^{25} + 11y^{24} + \cdots + 68y - 4)(y^{29} + 30y^{28} + \cdots - 1041y - 169)$
c_5, c_9	$(y - 1)^8(y^4 - 2y^3 + y^2 + 7y + 16)$ $\cdot (y^{24} + 9y^{23} + \cdots - 295504y + 23104)(y^{25} + 6y^{24} + \cdots + 10y - 1)$ $\cdot (y^{29} - 20y^{28} + \cdots + 82y - 1)$
c_6, c_{10}, c_{11}	$(y^4 + 2y^3 + y^2 + 3y + 4)(y^4 + 3y^3 + 4y^2 + 32y + 64)$ $\cdot (y^4 + 8y^3 + 18y^2 + 4y + 1)(y^{24} + 34y^{23} + \cdots - 101592y + 177241)$ $\cdot (y^{25} + 14y^{24} + \cdots + 17y - 1)(y^{29} + 48y^{28} + \cdots - 15y - 1)$
c_{12}	$(y^4 + y^3 + 3y^2 + 2y + 1)^8(y^4 + y^3 + 11y^2 + 11y + 4)$ $\cdot (y^{25} - 3y^{24} + \cdots + 14y - 1)(y^{29} - 3y^{28} + \cdots - 560y - 64)$