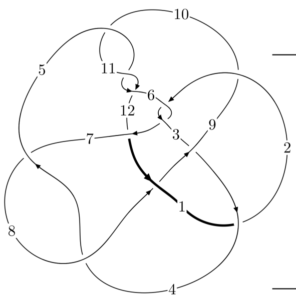
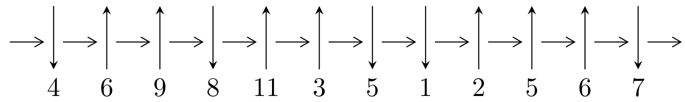
$12n_{0860}$ $(K12n_{0860})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle b+u,\ -6573198u^{24} - 7407745u^{23} + \cdots + 830359a - 20171003,\ u^{25} - 6u^{23} + \cdots + 10u^2 - 1\rangle$$

$$\begin{aligned}I_2^u = \langle &4.04286\times 10^{177}u^{71} - 1.22456\times 10^{178}u^{70} + \cdots + 1.03797\times 10^{179}b + 1.12104\times 10^{180},\\ &2.07451\times 10^{180}u^{71} - 5.60040\times 10^{180}u^{70} + \cdots + 6.92329\times 10^{181}a + 4.53244\times 10^{182},\\ &u^{72} - 2u^{71} + \cdots + 3115u + 667\rangle\end{aligned}$$

$$\begin{aligned}I_3^u = \langle &b+u,\ 3u^{13} - u^{12} - 10u^{11} + 7u^{10} + 16u^9 - 21u^8 - 13u^7 + 31u^6 - 7u^5 - 19u^4 + 17u^3 - 2u^2 + a - 3u + 3,\\ &u^{14} - 4u^{12} + u^{11} + 8u^{10} - 5u^9 - 10u^8 + 10u^7 + 5u^6 - 10u^5 + 2u^4 + 4u^3 - 2u^2 + 1\rangle\end{aligned}$$

$$\begin{aligned}I_4^u = \langle &u^{11} - u^{10} - 4u^9 + 5u^8 + 5u^7 - 9u^6 - 3u^5 + 9u^4 + 5u^3 - 5u^2 + b - 4u + 1,\\ &-8u^{11} + 3u^{10} + 34u^9 - 20u^8 - 51u^7 + 43u^6 + 45u^5 - 44u^4 - 61u^3 + a + 28u + 8,\\ &u^{12} - u^{11} - 4u^{10} + 5u^9 + 5u^8 - 9u^7 - 3u^6 + 9u^5 + 5u^4 - 5u^3 - 4u^2 + u + 1\rangle\end{aligned}$$

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 123 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. $\boldsymbol{I_1^u = \langle b + u,\ -6.57 \times 10^6 u^{24} - 7.41 \times 10^6 u^{23} + \cdots + 8.30 \times 10^5 a - 2.02 \times 10^7,\ u^{25} - 6u^{23} + \cdots + 10u^2 - 1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 7.91609u^{24} + 8.92114u^{23} + \cdots + 10.3907u + 24.2919 \\ -u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 7.91609u^{24} + 8.92114u^{23} + \cdots + 9.39074u + 24.2919 \\ -u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 3.56601u^{24} + 5.57186u^{23} + \cdots + 2.47465u + 15.3708 \\ 1.95267u^{24} + 1.21283u^{23} + \cdots + 3.35008u + 3.34927 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -8.92114u^{24} - 4.35008u^{23} + \cdots - 24.2919u - 6.91609 \\ u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -3.94984u^{24} - 1.36141u^{23} + \cdots - 15.3813u - 3.39671 \\ -1.21283u^{24} - 0.779766u^{23} + \cdots - 3.34927u - 1.95267 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.533909u^{24} + 2.27446u^{23} + \cdots - 10.2048u + 7.37157 \\ 1.04484u^{24} + 0.684652u^{23} + \cdots + 1.56683u + 1.02792 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 3.56601u^{24} + 5.57186u^{23} + \cdots + 3.47465u + 15.3708 \\ u^3 - u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 1.16861u^{24} + 3.43542u^{23} + \cdots - 0.0913593u + 9.79891 \\ 2.39741u^{24} + 2.13644u^{23} + \cdots + 2.56601u + 5.57186 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -\frac{22412}{830359}u^{24} + \frac{3732748}{830359}u^{23} + \cdots - \frac{3546046}{830359}u + \frac{19755477}{830359}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^{25} - u^{24} + \cdots + 2u - 1$
c_2, c_5, c_6 c_{10}, c_{11}	$u^{25} - 6u^{23} + \cdots + 10u^2 - 1$
c_3	$u^{25} - 18u^{24} + \cdots - 144u + 32$
c_4, c_7	$u^{25} - 15u^{24} + \cdots + 864u - 64$
c_9	$u^{25} - u^{24} + \cdots + u - 1$
c_{12}	$u^{25} + u^{24} + \cdots + 48u - 19$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$y^{25} + 3y^{24} + \cdots - 18y - 1$
c_2, c_5, c_6 c_{10}, c_{11}	$y^{25} - 12y^{24} + \cdots + 20y - 1$
c_3	$y^{25} + 8y^{24} + \cdots + 28416y - 1024$
c_4, c_7	$y^{25} + 19y^{24} + \cdots + 9216y - 4096$
c_9	$y^{25} + 7y^{24} + \cdots - 11y - 1$
c_{12}	$y^{25} + 9y^{24} + \cdots + 860y - 361$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.04100$ $a = 1.37005$ $b = -1.04100$	2.22466	3.28160
$u = -0.988163 + 0.354424I$ $a = -0.606149 - 1.059700I$ $b = 0.988163 - 0.354424I$	$7.43769 + 2.03575I$	$10.09013 + 0.83711I$
$u = -0.988163 - 0.354424I$ $a = -0.606149 + 1.059700I$ $b = 0.988163 + 0.354424I$	$7.43769 - 2.03575I$	$10.09013 - 0.83711I$
$u = -1.064740 + 0.110709I$ $a = -2.02955 + 0.79466I$ $b = 1.064740 - 0.110709I$	$5.86298 - 2.94895I$	$8.99062 + 3.88971I$
$u = -1.064740 - 0.110709I$ $a = -2.02955 - 0.79466I$ $b = 1.064740 + 0.110709I$	$5.86298 + 2.94895I$	$8.99062 - 3.88971I$
$u = 0.773294 + 0.776856I$ $a = 0.399881 - 0.058553I$ $b = -0.773294 - 0.776856I$	$2.95958 + 3.45034I$	$20.3542 + 1.7595I$
$u = 0.773294 - 0.776856I$ $a = 0.399881 + 0.058553I$ $b = -0.773294 + 0.776856I$	$2.95958 - 3.45034I$	$20.3542 - 1.7595I$
$u = -0.701802 + 0.884948I$ $a = -1.189240 - 0.493880I$ $b = 0.701802 - 0.884948I$	$-1.69441 + 5.16318I$	$2.00598 - 2.40163I$
$u = -0.701802 - 0.884948I$ $a = -1.189240 + 0.493880I$ $b = 0.701802 + 0.884948I$	$-1.69441 - 5.16318I$	$2.00598 + 2.40163I$
$u = 0.926391 + 0.732700I$ $a = 1.176220 - 0.249303I$ $b = -0.926391 - 0.732700I$	$0.74727 + 1.79853I$	$6.90577 + 1.84258I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.926391 - 0.732700I$ $a = 1.176220 + 0.249303I$ $b = -0.926391 + 0.732700I$	$0.74727 - 1.79853I$	$6.90577 - 1.84258I$
$u = 0.968203 + 0.709190I$ $a = 1.83876 - 0.47348I$ $b = -0.968203 - 0.709190I$	$-3.63929 + 1.05448I$	$1.231686 - 0.208690I$
$u = 0.968203 - 0.709190I$ $a = 1.83876 + 0.47348I$ $b = -0.968203 + 0.709190I$	$-3.63929 - 1.05448I$	$1.231686 + 0.208690I$
$u = 0.661030 + 0.060128I$ $a = 1.12111 - 4.60091I$ $b = -0.661030 - 0.060128I$	$4.19613 - 4.91912I$	$7.66633 - 1.97464I$
$u = 0.661030 - 0.060128I$ $a = 1.12111 + 4.60091I$ $b = -0.661030 + 0.060128I$	$4.19613 + 4.91912I$	$7.66633 + 1.97464I$
$u = -1.102000 + 0.839497I$ $a = -1.332340 - 0.405431I$ $b = 1.102000 - 0.839497I$	$-2.91779 - 11.36900I$	$2.13618 + 9.01386I$
$u = -1.102000 - 0.839497I$ $a = -1.332340 + 0.405431I$ $b = 1.102000 + 0.839497I$	$-2.91779 + 11.36900I$	$2.13618 - 9.01386I$
$u = -1.205760 + 0.684622I$ $a = -1.78051 - 0.40770I$ $b = 1.205760 - 0.684622I$	$3.10788 - 9.77200I$	$8.73131 + 8.65125I$
$u = -1.205760 - 0.684622I$ $a = -1.78051 + 0.40770I$ $b = 1.205760 + 0.684622I$	$3.10788 + 9.77200I$	$8.73131 - 8.65125I$
$u = 0.440634 + 0.404637I$ $a = 0.806981 + 0.033453I$ $b = -0.440634 - 0.404637I$	$0.941070 + 0.845446I$	$6.47361 - 3.95819I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.440634 - 0.404637I$ $a = 0.806981 - 0.033453I$ $b = -0.440634 + 0.404637I$	$0.941070 - 0.845446I$	$6.47361 + 3.95819I$
$u = 1.21789 + 0.78084I$ $a = 1.65813 - 0.60616I$ $b = -1.21789 - 0.78084I$	$1.4999 + 18.1479I$	$5.42967 - 9.83817I$
$u = 1.21789 - 0.78084I$ $a = 1.65813 + 0.60616I$ $b = -1.21789 + 0.78084I$	$1.4999 - 18.1479I$	$5.42967 + 9.83817I$
$u = -0.445487 + 0.066130I$ $a = -0.74831 + 2.96157I$ $b = 0.445487 - 0.066130I$	$-0.69655 - 2.56141I$	$7.34373 + 3.13996I$
$u = -0.445487 - 0.066130I$ $a = -0.74831 - 2.96157I$ $b = 0.445487 + 0.066130I$	$-0.69655 + 2.56141I$	$7.34373 - 3.13996I$

II. $\boldsymbol{I_2^u = \langle 4.04 \times 10^{177} u^{71} - 1.22 \times 10^{178} u^{70} + \cdots + 1.04 \times 10^{179} b + 1.12 \times 10^{180},\ 2.07 \times 10^{180} u^{71} - 5.60 \times 10^{180} u^{70} + \cdots + 6.92 \times 10^{181} a + 4.53 \times 10^{182},\ u^{72} - 2u^{71} + \cdots + 3115u + 667 \rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.0299642u^{71} + 0.0808921u^{70} + \cdots - 54.0865u - 6.54665 \\ -0.0389495u^{71} + 0.117976u^{70} + \cdots - 102.322u - 10.8003 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.0689137u^{71} + 0.198868u^{70} + \cdots - 156.409u - 17.3469 \\ -0.0389495u^{71} + 0.117976u^{70} + \cdots - 102.322u - 10.8003 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 0.0188809u^{71} - 0.0488389u^{70} + \cdots + 90.0890u + 34.1673 \\ -0.0889634u^{71} + 0.252754u^{70} + \cdots - 268.409u - 58.9026 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.0651825u^{71} + 0.179180u^{70} + \cdots - 242.727u - 67.7837 \\ 0.166790u^{71} - 0.453094u^{70} + \cdots + 527.156u + 147.002 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.223937u^{71} + 0.596286u^{70} + \cdots - 698.688u - 227.960 \\ 0.0455790u^{71} - 0.143310u^{70} + \cdots + 99.0482u + 32.3226 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.330004u^{71} - 0.827582u^{70} + \cdots + 1170.44u + 406.804 \\ -0.379833u^{71} + 0.967703u^{70} + \cdots - 1316.74u - 456.659 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -0.251947u^{71} + 0.675384u^{70} + \cdots - 830.082u - 256.511 \\ 0.222661u^{71} - 0.588650u^{70} + \cdots + 758.415u + 259.668 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.238360u^{71} + 0.640195u^{70} + \cdots - 761.894u - 237.727 \\ 0.209074u^{71} - 0.553461u^{70} + \cdots + 690.227u + 240.885 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.391897u^{71} - 1.05190u^{70} + \cdots + 1236.46u + 477.192$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^{72} - 3u^{71} + \cdots - 82u + 11$
c_2, c_5, c_6 c_{10}, c_{11}	$u^{72} - 2u^{71} + \cdots + 3115u + 667$
c_3	$(u^{36} + 8u^{35} + \cdots + 7u + 1)^2$
c_4, c_7	$(u^{36} + 5u^{35} + \cdots + 28u + 16)^2$
c_9	$u^{72} - 3u^{71} + \cdots + 88969u + 14521$
c_{12}	$u^{72} - 3u^{71} + \cdots - 2021932u + 128729$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$y^{72} + 13y^{71} + \cdots + 1064y + 121$
c_2, c_5, c_6 c_{10}, c_{11}	$y^{72} - 26y^{71} + \cdots - 11424085y + 444889$
c_3	$(y^{36} + 6y^{35} + \cdots + 21y + 1)^2$
c_4, c_7	$(y^{36} + 23y^{35} + \cdots + 3856y + 256)^2$
c_9	$y^{72} + 17y^{71} + \cdots - 2734709623y + 210859441$
c_{12}	$y^{72} - 47y^{71} + \cdots + 403916111712y + 16571155441$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.293202 + 0.951655I$ $a = 0.481565 + 0.249611I$ $b = -0.838778 - 0.744988I$	$0.48370 + 3.80390I$	$4.85781 - 6.80392I$
$u = -0.293202 - 0.951655I$ $a = 0.481565 - 0.249611I$ $b = -0.838778 + 0.744988I$	$0.48370 - 3.80390I$	$4.85781 + 6.80392I$
$u = 0.890259 + 0.409075I$ $a = -1.97398 + 0.49040I$ $b = 1.56186 - 0.03250I$	$7.34403 + 6.98740I$	$7.55942 - 8.82435I$
$u = 0.890259 - 0.409075I$ $a = -1.97398 - 0.49040I$ $b = 1.56186 + 0.03250I$	$7.34403 - 6.98740I$	$7.55942 + 8.82435I$
$u = 1.027250 + 0.164771I$ $a = -0.300916 + 1.323190I$ $b = 0.612382 + 0.594068I$	$5.85322 + 5.89280I$	$8.66037 - 8.10595I$
$u = 1.027250 - 0.164771I$ $a = -0.300916 - 1.323190I$ $b = 0.612382 - 0.594068I$	$5.85322 - 5.89280I$	$8.66037 + 8.10595I$
$u = -0.771348 + 0.704911I$ $a = 0.363589 + 0.021793I$ $b = 0.256284 + 1.024750I$	$-2.86714 - 2.24037I$	$-6.49145 + 0.I$
$u = -0.771348 - 0.704911I$ $a = 0.363589 - 0.021793I$ $b = 0.256284 - 1.024750I$	$-2.86714 + 2.24037I$	$-6.49145 + 0.I$
$u = 0.672916 + 0.810395I$ $a = 0.379223 - 0.353553I$ $b = -1.103690 + 0.782639I$	$-0.59000 - 3.03841I$	0
$u = 0.672916 - 0.810395I$ $a = 0.379223 + 0.353553I$ $b = -1.103690 - 0.782639I$	$-0.59000 + 3.03841I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.256284+1.024750I$ $a=-0.152002+0.326686I$ $b=\ \ 0.771348+0.704911I$	$-2.86714+2.24037I$	$-6.49145+0.I$
$u=-0.256284-1.024750I$ $a=-0.152002-0.326686I$ $b=\ \ 0.771348-0.704911I$	$-2.86714-2.24037I$	$-6.49145+0.I$
$u=\ \ 0.531576+0.763888I$ $a=-1.13923+1.17739I$ $b=\ \ 0.941625+0.640917I$	$-2.34237+2.97268I$	$-3.52902+0.65034I$
$u=\ \ 0.531576-0.763888I$ $a=-1.13923-1.17739I$ $b=\ \ 0.941625-0.640917I$	$-2.34237-2.97268I$	$-3.52902-0.65034I$
$u=-0.885695+0.609764I$ $a=\ \ 0.087958-0.863959I$ $b=\ \ 0.747538+0.983352I$	$-1.119130+0.584051I$	0
$u=-0.885695-0.609764I$ $a=\ \ 0.087958+0.863959I$ $b=\ \ 0.747538-0.983352I$	$-1.119130-0.584051I$	0
$u=\ \ 0.787960+0.744009I$ $a=-0.357461+0.311061I$ $b=\ \ 0.704662-1.077400I$	$-4.19566+4.49488I$	0
$u=\ \ 0.787960-0.744009I$ $a=-0.357461-0.311061I$ $b=\ \ 0.704662+1.077400I$	$-4.19566-4.49488I$	0
$u=-0.907072+0.627082I$ $a=\ \ 1.34405+0.65566I$ $b=-1.058510+0.908441I$	$-1.01674-5.40026I$	0
$u=-0.907072-0.627082I$ $a=\ \ 1.34405-0.65566I$ $b=-1.058510-0.908441I$	$-1.01674+5.40026I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.862186 + 0.187093I$ $a = -2.96882 + 0.09371I$ $b = 1.352310 - 0.151982I$	$6.63312 - 2.62155I$	$8.92614 + 3.90011I$
$u = -0.862186 - 0.187093I$ $a = -2.96882 - 0.09371I$ $b = 1.352310 + 0.151982I$	$6.63312 + 2.62155I$	$8.92614 - 3.90011I$
$u = 0.838778 + 0.744988I$ $a = -0.024461 + 0.480843I$ $b = 0.293202 - 0.951655I$	$0.48370 + 3.80390I$	0
$u = 0.838778 - 0.744988I$ $a = -0.024461 - 0.480843I$ $b = 0.293202 + 0.951655I$	$0.48370 - 3.80390I$	0
$u = 0.364630 + 1.071780I$ $a = -0.078780 + 0.321315I$ $b = 0.474680 + 0.069349I$	$-0.78509 + 3.12879I$	0
$u = 0.364630 - 1.071780I$ $a = -0.078780 - 0.321315I$ $b = 0.474680 - 0.069349I$	$-0.78509 - 3.12879I$	0
$u = 0.959342 + 0.613115I$ $a = -0.174877 + 1.288700I$ $b = 0.625453 - 0.136024I$	$3.84875 + 1.88710I$	0
$u = 0.959342 - 0.613115I$ $a = -0.174877 - 1.288700I$ $b = 0.625453 + 0.136024I$	$3.84875 - 1.88710I$	0
$u = -0.941625 + 0.640917I$ $a = 1.212970 + 0.566092I$ $b = -0.531576 + 0.763888I$	$-2.34237 - 2.97268I$	0
$u = -0.941625 - 0.640917I$ $a = 1.212970 - 0.566092I$ $b = -0.531576 - 0.763888I$	$-2.34237 + 2.97268I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.612382 + 0.594068I$ $a = -0.62536 + 1.53198I$ $b = -1.027250 + 0.164771I$	$5.85322 - 5.89280I$	$8.66037 + 8.10595I$
$u = -0.612382 - 0.594068I$ $a = -0.62536 - 1.53198I$ $b = -1.027250 - 0.164771I$	$5.85322 + 5.89280I$	$8.66037 - 8.10595I$
$u = 0.636856 + 0.544293I$ $a = -0.071506 - 0.131213I$ $b = -0.791953 + 1.119880I$	$-1.91320 - 1.84212I$	$-3.44243 - 5.52826I$
$u = 0.636856 - 0.544293I$ $a = -0.071506 + 0.131213I$ $b = -0.791953 - 1.119880I$	$-1.91320 + 1.84212I$	$-3.44243 + 5.52826I$
$u = 1.062770 + 0.507679I$ $a = -2.09378 + 0.51230I$ $b = 0.956860 + 0.881818I$	$-0.51407 + 6.14300I$	0
$u = 1.062770 - 0.507679I$ $a = -2.09378 - 0.51230I$ $b = 0.956860 - 0.881818I$	$-0.51407 - 6.14300I$	0
$u = 0.724136 + 0.357495I$ $a = 2.73817 - 1.26087I$ $b = -1.46519 + 0.13406I$	$6.72657 - 3.75562I$	$6.73637 + 0.95271I$
$u = 0.724136 - 0.357495I$ $a = 2.73817 + 1.26087I$ $b = -1.46519 - 0.13406I$	$6.72657 + 3.75562I$	$6.73637 - 0.95271I$
$u = -0.747538 + 0.983352I$ $a = -0.747664 + 0.111862I$ $b = 0.885695 + 0.609764I$	$-1.119130 - 0.584051I$	0
$u = -0.747538 - 0.983352I$ $a = -0.747664 - 0.111862I$ $b = 0.885695 - 0.609764I$	$-1.119130 + 0.584051I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.017220 + 0.717548I$ $a = -1.76664 + 0.88939I$ $b = 1.33238 + 0.73343I$	$0.44819 + 8.78228I$	0
$u = 1.017220 - 0.717548I$ $a = -1.76664 - 0.88939I$ $b = 1.33238 - 0.73343I$	$0.44819 - 8.78228I$	0
$u = 0.522514 + 1.148640I$ $a = -0.460106 + 0.085403I$ $b = 1.027380 - 0.764780I$	$-0.70110 - 11.26830I$	0
$u = 0.522514 - 1.148640I$ $a = -0.460106 - 0.085403I$ $b = 1.027380 + 0.764780I$	$-0.70110 + 11.26830I$	0
$u = -0.721923 + 0.108877I$ $a = 2.19903 + 0.06047I$ $b = -1.57929 - 0.32171I$	$6.09105 + 1.33098I$	$24.1529 + 1.8328I$
$u = -0.721923 - 0.108877I$ $a = 2.19903 - 0.06047I$ $b = -1.57929 + 0.32171I$	$6.09105 - 1.33098I$	$24.1529 - 1.8328I$
$u = -1.027380 + 0.764780I$ $a = -0.013580 + 0.460866I$ $b = -0.522514 - 1.148640I$	$-0.70110 - 11.26830I$	0
$u = -1.027380 - 0.764780I$ $a = -0.013580 - 0.460866I$ $b = -0.522514 + 1.148640I$	$-0.70110 + 11.26830I$	0
$u = -0.704662 + 1.077400I$ $a = 0.204603 + 0.342419I$ $b = -0.787960 - 0.744009I$	$-4.19566 + 4.49488I$	0
$u = -0.704662 - 1.077400I$ $a = 0.204603 - 0.342419I$ $b = -0.787960 + 0.744009I$	$-4.19566 - 4.49488I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.956860 + 0.881818I$ $a = 1.67455 + 1.00133I$ $b = -1.062770 + 0.507679I$	$-0.51407 - 6.14300I$	0
$u = -0.956860 - 0.881818I$ $a = 1.67455 - 1.00133I$ $b = -1.062770 - 0.507679I$	$-0.51407 + 6.14300I$	0
$u = 1.103690 + 0.782639I$ $a = 0.296915 - 0.273434I$ $b = -0.672916 + 0.810395I$	$-0.59000 + 3.03841I$	0
$u = 1.103690 - 0.782639I$ $a = 0.296915 + 0.273434I$ $b = -0.672916 - 0.810395I$	$-0.59000 - 3.03841I$	0
$u = -0.625453 + 0.136024I$ $a = 1.83722 - 1.40567I$ $b = -0.959342 - 0.613115I$	$3.84875 + 1.88710I$	$7.66826 - 3.81200I$
$u = -0.625453 - 0.136024I$ $a = 1.83722 + 1.40567I$ $b = -0.959342 + 0.613115I$	$3.84875 - 1.88710I$	$7.66826 + 3.81200I$
$u = -1.352310 + 0.151982I$ $a = -1.90862 + 0.25598I$ $b = 0.862186 - 0.187093I$	$6.63312 - 2.62155I$	0
$u = -1.352310 - 0.151982I$ $a = -1.90862 - 0.25598I$ $b = 0.862186 + 0.187093I$	$6.63312 + 2.62155I$	0
$u = 0.791953 + 1.119880I$ $a = 0.0838039 + 0.0361554I$ $b = -0.636856 + 0.544293I$	$-1.91320 + 1.84212I$	0
$u = 0.791953 - 1.119880I$ $a = 0.0838039 - 0.0361554I$ $b = -0.636856 - 0.544293I$	$-1.91320 - 1.84212I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.058510 + 0.908441I$ $a = -1.002760 + 0.626210I$ $b = 0.907072 + 0.627082I$	$-1.01674 + 5.40026I$	0
$u = 1.058510 - 0.908441I$ $a = -1.002760 - 0.626210I$ $b = 0.907072 - 0.627082I$	$-1.01674 - 5.40026I$	0
$u = 1.46519 + 0.13406I$ $a = 1.64306 - 0.19527I$ $b = -0.724136 + 0.357495I$	$6.72657 + 3.75562I$	0
$u = 1.46519 - 0.13406I$ $a = 1.64306 + 0.19527I$ $b = -0.724136 - 0.357495I$	$6.72657 - 3.75562I$	0
$u = -0.474680 + 0.069349I$ $a = 0.759723 + 0.179938I$ $b = -0.364630 + 1.071780I$	$-0.78509 - 3.12879I$	$11.00723 + 7.07943I$
$u = -0.474680 - 0.069349I$ $a = 0.759723 - 0.179938I$ $b = -0.364630 - 1.071780I$	$-0.78509 + 3.12879I$	$11.00723 - 7.07943I$
$u = -1.33238 + 0.73343I$ $a = 1.51778 + 0.56308I$ $b = -1.017220 + 0.717548I$	$0.44819 - 8.78228I$	0
$u = -1.33238 - 0.73343I$ $a = 1.51778 - 0.56308I$ $b = -1.017220 - 0.717548I$	$0.44819 + 8.78228I$	0
$u = -1.56186 + 0.03250I$ $a = 1.248130 + 0.263462I$ $b = -0.890259 - 0.409075I$	$7.34403 + 6.98740I$	0
$u = -1.56186 - 0.03250I$ $a = 1.248130 - 0.263462I$ $b = -0.890259 + 0.409075I$	$7.34403 - 6.98740I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.57929 + 0.32171I$ $a = -0.944923 + 0.316441I$ $b = 0.721923 - 0.108877I$	$6.09105 + 1.33098I$	0
$u = 1.57929 - 0.32171I$ $a = -0.944923 - 0.316441I$ $b = 0.721923 + 0.108877I$	$6.09105 - 1.33098I$	0

III. $\boldsymbol{I_3^u = \langle b+u,\ 3u^{13}-u^{12}+\cdots+a+3,\ u^{14}-4u^{12}+\cdots-2u^2+1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -3u^{13}+u^{12}+\cdots+3u-3 \\ -u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -3u^{13}+u^{12}+\cdots+2u-3 \\ -u \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^{13}+u^{12}+\cdots+3u^2-2 \\ -u^{13}+4u^{11}-u^{10}-8u^9+4u^8+9u^7-8u^6-4u^5+7u^4-2u^3-u^2+u \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -u \\ u \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^{13}+2u^{12}+\cdots+3u-2 \\ u^2 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -u^{10}-u^9+3u^8+2u^7-5u^6-u^5+6u^4-2u^3-2u^2+3u-1 \\ u^9+u^8-2u^7-2u^6+3u^5+u^4-3u^3-u^2-1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 2u^{13}-8u^{11}+\cdots+3u^2-2u \\ -u^{13}-u^{12}+\cdots-2u^2+2 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -u^{13}+u^{12}+\cdots+u-2 \\ u^3-u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} u^{12}-4u^{10}+7u^8-2u^7-7u^6+5u^5+2u^4-4u^3+3u^2-1 \\ -u^{13}+3u^{11}-u^{10}-4u^9+5u^8+3u^7-8u^6+3u^5+5u^4-5u^3-1 \end{pmatrix}$$

(ii) Obstruction class $=1$

(iii) Cusp Shapes $=$
$-u^{13}-12u^{12}+5u^{11}+44u^{10}-20u^9-80u^8+59u^7+86u^6-95u^5-25u^4+73u^3-27u^2-16u+16$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^{14} - u^{13} + \cdots + 2u + 1$
c_2, c_5	$u^{14} - 4u^{12} + \cdots - 2u^2 + 1$
c_3	$u^{14} - 5u^{13} + \cdots - u + 1$
c_4	$u^{14} - 2u^{13} + \cdots + 7u^2 + 1$
c_6, c_{10}, c_{11}	$u^{14} - 4u^{12} + \cdots - 2u^2 + 1$
c_7	$u^{14} + 2u^{13} + \cdots + 7u^2 + 1$
c_9	$u^{14} - u^{13} + \cdots - 7u + 11$
c_{12}	$u^{14} - u^{13} + \cdots + 8u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$y^{14} + 3y^{13} + \cdots + 2y + 1$
c_2, c_5, c_6 c_{10}, c_{11}	$y^{14} - 8y^{13} + \cdots - 4y + 1$
c_3	$y^{14} + 7y^{13} + \cdots + 5y + 1$
c_4, c_7	$y^{14} + 16y^{13} + \cdots + 14y + 1$
c_9	$y^{14} + 7y^{13} + \cdots - 49y + 121$
c_{12}	$y^{14} + 9y^{13} + \cdots + 12y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.708277 + 0.722829I$ $a = 0.178329 - 0.109327I$ $b = -0.708277 - 0.722829I$	$2.72350 + 3.66484I$	$1.0131 - 14.4704I$
$u = 0.708277 - 0.722829I$ $a = 0.178329 + 0.109327I$ $b = -0.708277 + 0.722829I$	$2.72350 - 3.66484I$	$1.0131 + 14.4704I$
$u = 0.814344 + 0.673833I$ $a = 1.28756 - 0.95732I$ $b = -0.814344 - 0.673833I$	$-1.72140 + 3.73975I$	$2.94829 - 5.83540I$
$u = 0.814344 - 0.673833I$ $a = 1.28756 + 0.95732I$ $b = -0.814344 + 0.673833I$	$-1.72140 - 3.73975I$	$2.94829 + 5.83540I$
$u = 1.217880 + 0.073388I$ $a = 1.62471 - 0.75115I$ $b = -1.217880 - 0.073388I$	$9.36722 + 5.19181I$	$12.06860 - 4.05955I$
$u = 1.217880 - 0.073388I$ $a = 1.62471 + 0.75115I$ $b = -1.217880 + 0.073388I$	$9.36722 - 5.19181I$	$12.06860 + 4.05955I$
$u = -1.241600 + 0.157386I$ $a = -1.97682 + 0.18018I$ $b = 1.241600 - 0.157386I$	$8.18724 - 2.78178I$	$15.1987 + 3.1820I$
$u = -1.241600 - 0.157386I$ $a = -1.97682 - 0.18018I$ $b = 1.241600 + 0.157386I$	$8.18724 + 2.78178I$	$15.1987 - 3.1820I$
$u = 0.274211 + 0.619417I$ $a = -0.442465 - 0.523132I$ $b = -0.274211 - 0.619417I$	$-1.59972 + 3.03409I$	$-2.76274 - 6.66173I$
$u = 0.274211 - 0.619417I$ $a = -0.442465 + 0.523132I$ $b = -0.274211 + 0.619417I$	$-1.59972 - 3.03409I$	$-2.76274 + 6.66173I$

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.638514 + 0.206273I$ $a = \quad 0.49153 - 4.07653I$ $b = \quad 0.638514 - 0.206273I$	$4.02966 - 5.46995I$	$2.98891 + 10.63955I$
$u = -0.638514 - 0.206273I$ $a = \quad 0.49153 + 4.07653I$ $b = \quad 0.638514 + 0.206273I$	$4.02966 + 5.46995I$	$2.98891 - 10.63955I$
$u = -1.134600 + 0.725892I$ $a = -1.66284 - 0.72296I$ $b = \quad 1.134600 - 0.725892I$	$0.39766 - 7.80430I$	$4.54523 + 4.46826I$
$u = -1.134600 - 0.725892I$ $a = -1.66284 + 0.72296I$ $b = \quad 1.134600 + 0.725892I$	$0.39766 + 7.80430I$	$4.54523 - 4.46826I$

IV.

$\boldsymbol{I_4^u = \langle u^{11} - u^{10} + \cdots + b + 1,\ -8u^{11} + 3u^{10} + \cdots + a + 8,\ u^{12} - u^{11} + \cdots + u + 1\rangle}$

(i) Arc colorings

$$a_3 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 8u^{11} - 3u^{10} + \cdots - 28u - 8 \\ -u^{11} + u^{10} + 4u^9 - 5u^8 - 5u^7 + 9u^6 + 3u^5 - 9u^4 - 5u^3 + 5u^2 + 4u - 1 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 7u^{11} - 2u^{10} + \cdots - 24u - 9 \\ -u^{11} + u^{10} + 4u^9 - 5u^8 - 5u^7 + 9u^6 + 3u^5 - 9u^4 - 5u^3 + 5u^2 + 4u - 1 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 5u^{11} - 3u^{10} + \cdots - 16u - 3 \\ 2u^{10} - 2u^9 - 6u^8 + 7u^7 + 6u^6 - 10u^5 - 5u^4 + 10u^3 + 9u^2 - u - 4 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -u \\ u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 8u^{11} - 35u^9 + \cdots - 32u - 19 \\ u^{11} - 2u^{10} - 3u^9 + 9u^8 - 14u^6 + 6u^5 + 12u^4 - 4u^3 - 10u^2 + u + 5 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} -15u^{11} + 11u^{10} + \cdots + 32u + 6 \\ 12u^{11} - 9u^{10} + \cdots - 27u - 5 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -10u^{11} + 9u^{10} + \cdots + 19u + 2 \\ 5u^{11} - 6u^{10} + \cdots - 7u + 2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -11u^{11} + 8u^{10} + \cdots + 27u + 5 \\ 4u^{11} - 5u^{10} + \cdots - 6u + 3 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -7u^{11} + 6u^{10} + \cdots + 16u + 1 \\ -3u^{10} + 2u^9 + \cdots + 5u + 7 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes
$= 17u^{11} + 2u^{10} - 73u^9 + 3u^8 + 127u^7 - 31u^6 - 145u^5 + 46u^4 + 175u^3 + 67u^2 - 59u - 37$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^{12} + 3u^{10} + \cdots - 2u + 1$
c_2, c_5	$u^{12} + u^{11} + \cdots - u + 1$
c_3	$(u^6 + 3u^5 + 5u^4 + 3u^3 + u^2 + 1)^2$
c_4	$(u^6 + u^5 + 3u^4 + u^3 + 3u^2 + 2)^2$
c_6, c_{10}, c_{11}	$u^{12} - u^{11} + \cdots + u + 1$
c_7	$(u^6 - u^5 + 3u^4 - u^3 + 3u^2 + 2)^2$
c_9	$u^{12} + 6u^{11} + \cdots - u + 1$
c_{12}	$u^{12} - u^{10} + \cdots - 26u + 7$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$y^{12} + 6y^{11} + \cdots + 12y + 1$
c_2, c_5, c_6 c_{10}, c_{11}	$y^{12} - 9y^{11} + \cdots - 9y + 1$
c_3	$(y^6 + y^5 + 9y^4 + 3y^3 + 11y^2 + 2y + 1)^2$
c_4, c_7	$(y^6 + 5y^5 + 13y^4 + 21y^3 + 21y^2 + 12y + 4)^2$
c_9	$y^{12} + 2y^{11} + \cdots + 17y + 1$
c_{12}	$y^{12} - 2y^{11} + \cdots - 340y + 49$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.507030+0.603459I$ $a=-0.162698+0.225256I$ $b=-0.816155-0.971374I$	$-1.63995+2.38212I$	$2.11510-6.09550I$
$u=-0.507030-0.603459I$ $a=-0.162698-0.225256I$ $b=-0.816155+0.971374I$	$-1.63995-2.38212I$	$2.11510+6.09550I$
$u=\ \ 0.816155+0.971374I$ $a=-0.155267-0.075441I$ $b=\ \ 0.507030-0.603459I$	$-1.63995+2.38212I$	$2.11510-6.09550I$
$u=\ \ 0.816155-0.971374I$ $a=-0.155267+0.075441I$ $b=\ \ 0.507030+0.603459I$	$-1.63995-2.38212I$	$2.11510+6.09550I$
$u=\ \ 0.727681+0.027817I$ $a=-2.92386+1.92438I$ $b=\ \ 1.372220-0.052457I$	$7.35953-4.74338I$	$11.87983+6.62323I$
$u=\ \ 0.727681-0.027817I$ $a=-2.92386-1.92438I$ $b=\ \ 1.372220+0.052457I$	$7.35953+4.74338I$	$11.87983-6.62323I$
$u=-0.644125+0.143028I$ $a=\ \ 2.71167+0.13099I$ $b=-1.47954-0.32853I$	$5.79496+1.44331I$	$0.00507-5.15575I$
$u=-0.644125-0.143028I$ $a=\ \ 2.71167-0.13099I$ $b=-1.47954+0.32853I$	$5.79496-1.44331I$	$0.00507+5.15575I$
$u=-1.372220+0.052457I$ $a=\ \ 1.62389-0.89914I$ $b=-0.727681-0.027817I$	$7.35953-4.74338I$	$11.87983+6.62323I$
$u=-1.372220-0.052457I$ $a=\ \ 1.62389+0.89914I$ $b=-0.727681+0.027817I$	$7.35953+4.74338I$	$11.87983-6.62323I$

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.47954 + 0.32853I$ $a = -1.093730 + 0.447972I$ $b = 0.644125 - 0.143028I$	$5.79496 + 1.44331I$	$0.00507 - 5.15575I$
$u = 1.47954 - 0.32853I$ $a = -1.093730 - 0.447972I$ $b = 0.644125 + 0.143028I$	$5.79496 - 1.44331I$	$0.00507 + 5.15575I$

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1, c_8	$(u^{12} + 3u^{10} + \cdots - 2u + 1)(u^{14} - u^{13} + \cdots + 2u + 1)$ $\cdot (u^{25} - u^{24} + \cdots + 2u - 1)(u^{72} - 3u^{71} + \cdots - 82u + 11)$
c_2, c_5	$(u^{12} + u^{11} + \cdots - u + 1)(u^{14} - 4u^{12} + \cdots - 2u^2 + 1)$ $\cdot (u^{25} - 6u^{23} + \cdots + 10u^2 - 1)(u^{72} - 2u^{71} + \cdots + 3115u + 667)$
c_3	$((u^6 + 3u^5 + 5u^4 + 3u^3 + u^2 + 1)^2)(u^{14} - 5u^{13} + \cdots - u + 1)$ $\cdot (u^{25} - 18u^{24} + \cdots - 144u + 32)(u^{36} + 8u^{35} + \cdots + 7u + 1)^2$
c_4	$((u^6 + u^5 + 3u^4 + u^3 + 3u^2 + 2)^2)(u^{14} - 2u^{13} + \cdots + 7u^2 + 1)$ $\cdot (u^{25} - 15u^{24} + \cdots + 864u - 64)(u^{36} + 5u^{35} + \cdots + 28u + 16)^2$
c_6, c_{10}, c_{11}	$(u^{12} - u^{11} + \cdots + u + 1)(u^{14} - 4u^{12} + \cdots - 2u^2 + 1)$ $\cdot (u^{25} - 6u^{23} + \cdots + 10u^2 - 1)(u^{72} - 2u^{71} + \cdots + 3115u + 667)$
c_7	$((u^6 - u^5 + 3u^4 - u^3 + 3u^2 + 2)^2)(u^{14} + 2u^{13} + \cdots + 7u^2 + 1)$ $\cdot (u^{25} - 15u^{24} + \cdots + 864u - 64)(u^{36} + 5u^{35} + \cdots + 28u + 16)^2$
c_9	$(u^{12} + 6u^{11} + \cdots - u + 1)(u^{14} - u^{13} + \cdots - 7u + 11)$ $\cdot (u^{25} - u^{24} + \cdots + u - 1)(u^{72} - 3u^{71} + \cdots + 88969u + 14521)$
c_{12}	$(u^{12} - u^{10} + \cdots - 26u + 7)(u^{14} - u^{13} + \cdots + 8u + 1)$ $\cdot (u^{25} + u^{24} + \cdots + 48u - 19)(u^{72} - 3u^{71} + \cdots - 2021932u + 128729)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_8	$(y^{12}+6y^{11}+\cdots+12y+1)(y^{14}+3y^{13}+\cdots+2y+1)$ $\cdot(y^{25}+3y^{24}+\cdots-18y-1)(y^{72}+13y^{71}+\cdots+1064y+121)$
c_2, c_5, c_6 c_{10}, c_{11}	$(y^{12}-9y^{11}+\cdots-9y+1)(y^{14}-8y^{13}+\cdots-4y+1)$ $\cdot(y^{25}-12y^{24}+\cdots+20y-1)$ $\cdot(y^{72}-26y^{71}+\cdots-11424085y+444889)$
c_3	$((y^6+y^5+\cdots+2y+1)^2)(y^{14}+7y^{13}+\cdots+5y+1)$ $\cdot(y^{25}+8y^{24}+\cdots+28416y-1024)(y^{36}+6y^{35}+\cdots+21y+1)^2$
c_4, c_7	$(y^6+5y^5+13y^4+21y^3+21y^2+12y+4)^2$ $\cdot(y^{14}+16y^{13}+\cdots+14y+1)(y^{25}+19y^{24}+\cdots+9216y-4096)$ $\cdot(y^{36}+23y^{35}+\cdots+3856y+256)^2$
c_9	$(y^{12}+2y^{11}+\cdots+17y+1)(y^{14}+7y^{13}+\cdots-49y+121)$ $\cdot(y^{25}+7y^{24}+\cdots-11y-1)$ $\cdot(y^{72}+17y^{71}+\cdots-2734709623y+210859441)$
c_{12}	$(y^{12}-2y^{11}+\cdots-340y+49)(y^{14}+9y^{13}+\cdots+12y+1)$ $\cdot(y^{25}+9y^{24}+\cdots+860y-361)$ $\cdot(y^{72}-47y^{71}+\cdots+403916111712y+16571155441)$