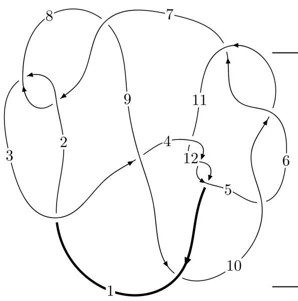
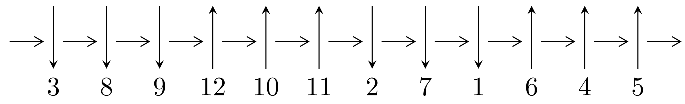
$12a_{0742}$ ($K12a_{0742}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$I_1^u = \langle u^{32} - u^{31} + \cdots + b - 1,\ -u^{33} + 5u^{32} + \cdots + 2a - 8,\ u^{34} - 3u^{33} + \cdots + 8u - 2\rangle$$
$$I_2^u = \langle -2u^4a - u^3a + 3u^4 + u^3 - u^2 + 2b - 3a + 6,\ -2u^4a - u^3a + 3u^4 + 3u^3 + a^2 + au - 2u^2 - 3a + u + 4,\ u^5 + u^4 + 2u + 1\rangle$$
$$I_3^u = \langle b - 1,\ u^3 + 2u^2 + 2a - u,\ u^4 - u^2 + 2\rangle$$
$$I_4^u = \langle -3u^{15}a - 4u^{14}a + \cdots - 6a + 4,\ u^{15}a - u^{15} + \cdots + a^2 - a,\ u^{16} + u^{15} - 2u^{14} - 3u^{13} + 4u^{12} + 7u^{11} - 3u^{10} - 10u^9 + 9u^7 + 3u^6 - 5u^5 - 4u^4 + 2u^2 + 2u + 1\rangle$$
$$I_5^u = \langle b + 1,\ a + u - 1,\ u^4 + 1\rangle$$
$$I_6^u = \langle b,\ a + 1,\ u - 1\rangle$$
$$I_7^u = \langle b - 1,\ a - 1,\ u - 1\rangle$$
$$I_8^u = \langle b - 1,\ a,\ u - 1\rangle$$
$$I_9^u = \langle b - 1,\ a - 2,\ u + 1\rangle$$

$$I_1^v = \langle a,\ b + 1,\ v + 1\rangle$$

* 10 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 89 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.

$$I^u_1 = \langle u^{32} - u^{31} + \cdots + b - 1,\ -u^{33} + 5u^{32} + \cdots + 2a - 8,\ u^{34} - 3u^{33} + \cdots + 8u - 2\rangle$$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -u^2 + 1 \\ u^2 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} u^7 - 2u^5 + 2u^3 - 2u \\ -u^7 + u^5 - 2u^3 + u \end{pmatrix}$$
$$a_1 = \begin{pmatrix} u^3 \\ u^5 - u^3 + u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} \frac{1}{2}u^{33} - \frac{5}{2}u^{32} + \cdots - 9u + 4 \\ -u^{32} + u^{31} + \cdots - 4u + 1 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} \frac{3}{2}u^{33} - \frac{7}{2}u^{32} + \cdots - 8u + 3 \\ -u^{33} + 2u^{32} + \cdots + 4u - 1 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} -u^{10} + u^8 - 2u^6 + u^4 - u^2 + 1 \\ -u^{12} + 2u^{10} - 4u^8 + 4u^6 - 3u^4 + 2u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} \frac{7}{2}u^{33} - \frac{17}{2}u^{32} + \cdots - 20u + 6 \\ -3u^{33} + 6u^{32} + \cdots + 12u - 3 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} \frac{1}{2}u^{33} - \frac{3}{2}u^{32} + \cdots - 5u + 2 \\ -u^{32} + u^{31} + \cdots - 3u + 1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -8u^{33} + 18u^{32} + 24u^{31} - 98u^{30} - 34u^{29} + 324u^{28} - 48u^{27} - 778u^{26} + 404u^{25} + 1380u^{24} - 1192u^{23} - 1882u^{22} + 2412u^{21} + 1850u^{20} - 3712u^{19} - 984u^{18} + 4390u^{17} - 460u^{16} - 3998u^{15} + 1854u^{14} + 2552u^{13} - 2452u^{12} - 726u^{11} + 1942u^{10} - 470u^9 - 954u^8 + 796u^7 + 110u^6 - 512u^5 + 270u^4 + 50u^3 - 132u^2 + 74u - 20$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$u^{34} + 11u^{33} + \cdots - 16u + 4$
c_2, c_7	$u^{34} + 3u^{33} + \cdots - 8u - 2$
c_3	$u^{34} - 3u^{33} + \cdots + 848u - 296$
c_4, c_5, c_6 c_{10}, c_{11}, c_{12}	$u^{34} - u^{33} + \cdots + u + 1$
c_9	$u^{34} + 21u^{33} + \cdots - 40228u - 4366$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8	$y^{34} + 25y^{33} + \cdots - 288y + 16$
c_2, c_7	$y^{34} - 11y^{33} + \cdots + 16y + 4$
c_3	$y^{34} + y^{33} + \cdots + 674464y + 87616$
c_4, c_5, c_6 c_{10}, c_{11}, c_{12}	$y^{34} - 43y^{33} + \cdots - 9y + 1$
c_9	$y^{34} + 13y^{33} + \cdots + 56365904y + 19061956$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.988927 + 0.109578I$ $a = -0.431526 + 1.228470I$ $b = 0.276236 + 0.567180I$	$-3.24927 + 2.65062I$	$-6.82528 - 6.63039I$
$u = -0.988927 - 0.109578I$ $a = -0.431526 - 1.228470I$ $b = 0.276236 - 0.567180I$	$-3.24927 - 2.65062I$	$-6.82528 + 6.63039I$
$u = -0.739127 + 0.741106I$ $a = 0.930370 + 0.017261I$ $b = -0.485252 - 0.215051I$	$3.09736 + 0.68740I$	$3.83595 - 3.91295I$
$u = -0.739127 - 0.741106I$ $a = 0.930370 - 0.017261I$ $b = -0.485252 + 0.215051I$	$3.09736 - 0.68740I$	$3.83595 + 3.91295I$
$u = 0.718436 + 0.774498I$ $a = 0.812978 + 0.075813I$ $b = -0.412168 - 0.529259I$	$2.64462 + 2.18332I$	$2.21430 - 4.77335I$
$u = 0.718436 - 0.774498I$ $a = 0.812978 - 0.075813I$ $b = -0.412168 + 0.529259I$	$2.64462 - 2.18332I$	$2.21430 + 4.77335I$
$u = 0.939426$ $a = 0.0259566$ $b = 0.428300$	-1.90429	-3.14100
$u = 0.891331 + 0.603370I$ $a = 0.422005 + 0.483472I$ $b = 0.066256 + 0.592921I$	$-0.69654 - 2.34709I$	$-4.49475 + 2.27928I$
$u = 0.891331 - 0.603370I$ $a = 0.422005 - 0.483472I$ $b = 0.066256 - 0.592921I$	$-0.69654 + 2.34709I$	$-4.49475 - 2.27928I$
$u = 1.005180 + 0.389797I$ $a = -0.154937 + 0.640657I$ $b = -1.52677 - 0.22591I$	$9.88665 + 2.86032I$	$4.26747 + 0.39615I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.005180 - 0.389797I$ $a = -0.154937 - 0.640657I$ $b = -1.52677 + 0.22591I$	$9.88665 - 2.86032I$	$4.26747 - 0.39615I$
$u = -1.076760 + 0.192034I$ $a = -0.23388 - 1.88626I$ $b = -1.52621 - 0.30047I$	$8.67508 + 9.43470I$	$2.55855 - 6.18677I$
$u = -1.076760 - 0.192034I$ $a = -0.23388 + 1.88626I$ $b = -1.52621 + 0.30047I$	$8.67508 - 9.43470I$	$2.55855 + 6.18677I$
$u = -1.10214$ $a = 1.33391$ $b = 1.42323$	3.37001	2.15130
$u = 0.701066 + 0.850551I$ $a = -2.07986 + 0.41696I$ $b = 1.56353 + 0.32987I$	$15.6899 + 9.3353I$	$8.75460 - 3.54458I$
$u = 0.701066 - 0.850551I$ $a = -2.07986 - 0.41696I$ $b = 1.56353 - 0.32987I$	$15.6899 - 9.3353I$	$8.75460 + 3.54458I$
$u = 0.506457 + 0.733877I$ $a = 1.048590 + 0.101195I$ $b = -1.46790 - 0.05121I$	$8.81248 + 1.35417I$	$8.27726 - 0.26965I$
$u = 0.506457 - 0.733877I$ $a = 1.048590 - 0.101195I$ $b = -1.46790 + 0.05121I$	$8.81248 - 1.35417I$	$8.27726 + 0.26965I$
$u = -0.804999 + 0.836403I$ $a = -2.48607 + 0.64116I$ $b = 1.62501 + 0.21278I$	$17.5746 + 4.9413I$	$9.92383 - 3.25429I$
$u = -0.804999 - 0.836403I$ $a = -2.48607 - 0.64116I$ $b = 1.62501 - 0.21278I$	$17.5746 - 4.9413I$	$9.92383 + 3.25429I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.966971 + 0.696899I$ $a = -0.486334 + 0.622660I$ $b = 0.511243 - 0.168909I$	$2.40071 + 4.80114I$	$1.91928 - 2.14166I$
$u = -0.966971 - 0.696899I$ $a = -0.486334 - 0.622660I$ $b = 0.511243 + 0.168909I$	$2.40071 - 4.80114I$	$1.91928 + 2.14166I$
$u = 1.032170 + 0.632265I$ $a = -0.17093 - 1.70332I$ $b = 1.43085 - 0.07072I$	$7.31130 - 6.52330I$	$5.94001 + 5.49172I$
$u = 1.032170 - 0.632265I$ $a = -0.17093 + 1.70332I$ $b = 1.43085 + 0.07072I$	$7.31130 + 6.52330I$	$5.94001 - 5.49172I$
$u = 0.986491 + 0.714526I$ $a = -1.35111 - 0.66802I$ $b = 0.407979 - 0.571160I$	$1.83243 - 7.82430I$	$0.40818 + 9.67142I$
$u = 0.986491 - 0.714526I$ $a = -1.35111 + 0.66802I$ $b = 0.407979 + 0.571160I$	$1.83243 + 7.82430I$	$0.40818 - 9.67142I$
$u = -0.957491 + 0.784549I$ $a = 1.91646 - 1.35507I$ $b = -1.62922 + 0.19094I$	$17.1033 + 1.1035I$	$9.17994 - 1.90960I$
$u = -0.957491 - 0.784549I$ $a = 1.91646 + 1.35507I$ $b = -1.62922 - 0.19094I$	$17.1033 - 1.1035I$	$9.17994 + 1.90960I$
$u = 1.022640 + 0.743834I$ $a = 1.85346 + 2.37415I$ $b = -1.55431 + 0.34115I$	$14.7022 - 15.2836I$	$7.11885 + 8.33563I$
$u = 1.022640 - 0.743834I$ $a = 1.85346 - 2.37415I$ $b = -1.55431 - 0.34115I$	$14.7022 + 15.2836I$	$7.11885 - 8.33563I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.122815 + 0.705145I$ $a = -2.12345 - 0.61721I$ $b = 1.55687 - 0.26874I$	$12.6181 - 6.5965I$	$9.17145 + 3.77893I$
$u = 0.122815 - 0.705145I$ $a = -2.12345 + 0.61721I$ $b = 1.55687 + 0.26874I$	$12.6181 + 6.5965I$	$9.17145 - 3.77893I$
$u = 0.129052 + 0.423858I$ $a = 0.854310 + 0.046698I$ $b = -0.261902 + 0.382447I$	$0.121984 - 0.976428I$	$2.24524 + 6.97728I$
$u = 0.129052 - 0.423858I$ $a = 0.854310 - 0.046698I$ $b = -0.261902 - 0.382447I$	$0.121984 + 0.976428I$	$2.24524 - 6.97728I$

II. $I_2^u = \langle -2u^4a - u^3a + 3u^4 + u^3 - u^2 + 2b - 3a + 6,\ -2u^4a + 3u^4 + \cdots - 3a + 4,\ u^5 + u^4 + 2u + 1\rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -u \\ -u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -u^2 + 1 \\ u^2 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} u^4 + u^2 + u + 1 \\ -u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} u^3 \\ -u^4 - u^3 - u - 1 \end{pmatrix}$$

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

$$a_6 = \begin{pmatrix} \frac{3}{2}u^4a - u^4 + \cdots + 3a - 3 \\ -\frac{1}{2}u^4a + u^4 + \cdots - a + \frac{5}{2} \end{pmatrix}$$

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

$$a_5 = \begin{pmatrix} 2u^4a - 2u^4 + \cdots + 4a - \frac{11}{2} \\ -\frac{1}{2}u^4a + \frac{1}{2}u^4 + \cdots - \frac{1}{2}a + \frac{3}{2} \end{pmatrix}$$

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^4 - 4u^3 + 4u^2 - 2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$(u^5 + u^4 + 4u^3 + 2u^2 + 4u + 1)^2$
c_2, c_7	$(u^5 - u^4 + 2u - 1)^2$
c_3	$(u^5 + 4u^4 + 9u^3 + 9u^2 + 4u - 4)^2$
c_4, c_5, c_6 c_{10}, c_{11}, c_{12}	$u^{10} - u^9 - 4u^8 + 4u^7 + 4u^6 - 3u^5 - 3u^4 - u^3 + 9u^2 - 2u - 5$
c_9	$(u^5 - u^4 + 4u^3 - 2u^2 + 4u - 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8, c_9	$(y^5 + 7y^4 + 20y^3 + 26y^2 + 12y - 1)^2$
c_2, c_7	$(y^5 - y^4 + 4y^3 - 2y^2 + 4y - 1)^2$
c_3	$(y^5 + 2y^4 + 17y^3 + 23y^2 + 88y - 16)^2$
c_4, c_5, c_6 c_{10}, c_{11}, c_{12}	$y^{10} - 9y^9 + \cdots - 94y + 25$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.760506 + 0.815892I$ $a = 0.989553 - 0.173629I$ $b = -0.733353 + 0.825839I$	$9.59182 - 1.13825I$	$8.09602 + 2.34058I$
$u = 0.760506 + 0.815892I$ $a = -2.89378 - 0.20313I$ $b = 1.49386 - 0.00995I$	$9.59182 - 1.13825I$	$8.09602 + 2.34058I$
$u = 0.760506 - 0.815892I$ $a = 0.989553 + 0.173629I$ $b = -0.733353 - 0.825839I$	$9.59182 + 1.13825I$	$8.09602 - 2.34058I$
$u = 0.760506 - 0.815892I$ $a = -2.89378 + 0.20313I$ $b = 1.49386 + 0.00995I$	$9.59182 + 1.13825I$	$8.09602 - 2.34058I$
$u = -1.001870 + 0.741764I$ $a = -1.58501 + 0.67934I$ $b = 0.487815 + 0.934585I$	$8.07331 + 10.61130I$	$5.23519 - 7.85454I$
$u = -1.001870 + 0.741764I$ $a = 2.22820 - 2.29189I$ $b = -1.48968 - 0.19282I$	$8.07331 + 10.61130I$	$5.23519 - 7.85454I$
$u = -1.001870 - 0.741764I$ $a = -1.58501 - 0.67934I$ $b = 0.487815 - 0.934585I$	$8.07331 - 10.61130I$	$5.23519 + 7.85454I$
$u = -1.001870 - 0.741764I$ $a = 2.22820 + 2.29189I$ $b = -1.48968 + 0.19282I$	$8.07331 - 10.61130I$	$5.23519 + 7.85454I$
$u = -0.517281$ $a = 1.16595$ $b = -1.15268$	2.50323	-0.662420
$u = -0.517281$ $a = 2.35611$ $b = 0.635404$	2.50323	-0.662420

III. $I_3^u = \langle b-1,\ u^3+2u^2+2a-u,\ u^4-u^2+2\rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 4u^2+4$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.978318 + 0.676097I$ $a = 0.19178 - 1.80095I$ $b = 1.00000$	$4.11234 - 5.33349I$	$6.00000 + 5.29150I$
$u = 0.978318 - 0.676097I$ $a = 0.19178 + 1.80095I$ $b = 1.00000$	$4.11234 + 5.33349I$	$6.00000 - 5.29150I$
$u = -0.978318 + 0.676097I$ $a = -1.19178 + 0.84480I$ $b = 1.00000$	$4.11234 + 5.33349I$	$6.00000 - 5.29150I$
$u = -0.978318 - 0.676097I$ $a = -1.19178 - 0.84480I$ $b = 1.00000$	$4.11234 - 5.33349I$	$6.00000 + 5.29150I$

IV. $\boldsymbol{I_4^u =}$
$\boldsymbol{\langle -3u^{15}a-4u^{14}a+\cdots-6a+4,\ u^{15}a-u^{15}+\cdots+a^2-a,\ u^{16}+u^{15}+\cdots+2u+1\rangle}$

(i) Arc colorings

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 4u^{12}-8u^{10}+16u^8+4u^7-16u^6-8u^5+12u^4+8u^3-4u^2-4u+2$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_8	$(u^{16} + 5u^{15} + \cdots - 4u^2 + 1)^2$
c_2, c_7	$(u^{16} - u^{15} + \cdots - 2u + 1)^2$
c_3	$(u^8 - 2u^7 + 3u^6 + u^4 + 2u^2 - 2u + 1)^4$
c_4, c_5, c_6 c_{10}, c_{11}, c_{12}	$u^{32} - u^{31} + \cdots + 6u + 3$
c_9	$(u^{16} - 5u^{15} + \cdots - 4u^2 + 1)^2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_8, c_9	$(y^{16} + 11y^{15} + \cdots - 8y + 1)^2$
c_2, c_7	$(y^{16} - 5y^{15} + \cdots - 4y^2 + 1)^2$
c_3	$(y^8 + 2y^7 + 11y^6 + 10y^5 + 7y^4 + 10y^3 + 6y^2 + 1)^4$
c_4, c_5, c_6 c_{10}, c_{11}, c_{12}	$y^{32} - 27y^{31} + \cdots + 102y + 9$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.017320 + 0.191091I$ $a = -0.34975 - 1.64157I$ $b = 0.458488 - 0.829230I$	$2.20856 - 5.29622I$	$-0.10789 + 6.28296I$
$u = 1.017320 + 0.191091I$ $a = 0.23817 + 1.83664I$ $b = -1.41899 + 0.17495I$	$2.20856 - 5.29622I$	$-0.10789 + 6.28296I$
$u = 1.017320 - 0.191091I$ $a = -0.34975 + 1.64157I$ $b = 0.458488 + 0.829230I$	$2.20856 + 5.29622I$	$-0.10789 - 6.28296I$
$u = 1.017320 - 0.191091I$ $a = 0.23817 - 1.83664I$ $b = -1.41899 - 0.17495I$	$2.20856 + 5.29622I$	$-0.10789 - 6.28296I$
$u = -0.908738 + 0.252477I$ $a = 1.024170 - 0.602730I$ $b = 0.650125 - 0.629128I$	$2.96149 + 0.25270I$	$1.61015 - 0.96511I$
$u = -0.908738 + 0.252477I$ $a = 0.672335 - 1.024320I$ $b = -1.358490 + 0.017727I$	$2.96149 + 0.25270I$	$1.61015 - 0.96511I$
$u = -0.908738 - 0.252477I$ $a = 1.024170 + 0.602730I$ $b = 0.650125 + 0.629128I$	$2.96149 - 0.25270I$	$1.61015 + 0.96511I$
$u = -0.908738 - 0.252477I$ $a = 0.672335 + 1.024320I$ $b = -1.358490 - 0.017727I$	$2.96149 - 0.25270I$	$1.61015 + 0.96511I$
$u = -0.708362 + 0.611401I$ $a = 0.955612 - 0.379206I$ $b = 0.244922 - 0.372311I$	$2.96149 - 0.25270I$	$1.61015 + 0.96511I$
$u = -0.708362 + 0.611401I$ $a = 0.938047 + 0.006205I$ $b = -1.153660 + 0.119834I$	$2.96149 - 0.25270I$	$1.61015 + 0.96511I$

Solutions to I_4^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.708362 - 0.611401I$ $a = 0.955612 + 0.379206I$ $b = 0.244922 + 0.372311I$	$2.96149 + 0.25270I$	$1.61015 - 0.96511I$
$u = -0.708362 - 0.611401I$ $a = 0.938047 - 0.006205I$ $b = -1.153660 - 0.119834I$	$2.96149 + 0.25270I$	$1.61015 - 0.96511I$
$u = -0.724199 + 0.826388I$ $a = 0.657035 - 0.259025I$ $b = -0.514081 + 0.923230I$	$8.92422 - 4.73566I$	$6.88636 + 2.91588I$
$u = -0.724199 + 0.826388I$ $a = -2.59244 - 0.38162I$ $b = 1.49162 - 0.17329I$	$8.92422 - 4.73566I$	$6.88636 + 2.91588I$
$u = -0.724199 - 0.826388I$ $a = 0.657035 + 0.259025I$ $b = -0.514081 - 0.923230I$	$8.92422 + 4.73566I$	$6.88636 - 2.91588I$
$u = -0.724199 - 0.826388I$ $a = -2.59244 + 0.38162I$ $b = 1.49162 + 0.17329I$	$8.92422 + 4.73566I$	$6.88636 - 2.91588I$
$u = 0.866890 + 0.696274I$ $a = 1.54948 - 0.22013I$ $b = -1.165260 - 0.286760I$	$5.64493 - 2.67607I$	$7.61139 + 3.32415I$
$u = 0.866890 + 0.696274I$ $a = -1.67678 - 2.03785I$ $b = 1.105310 - 0.336093I$	$5.64493 - 2.67607I$	$7.61139 + 3.32415I$
$u = 0.866890 - 0.696274I$ $a = 1.54948 + 0.22013I$ $b = -1.165260 + 0.286760I$	$5.64493 + 2.67607I$	$7.61139 - 3.32415I$
$u = 0.866890 - 0.696274I$ $a = -1.67678 + 2.03785I$ $b = 1.105310 + 0.336093I$	$5.64493 + 2.67607I$	$7.61139 - 3.32415I$

Solutions to I_4^u	$\sqrt{-1}(\text{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.960503+0.654282I$ $a=-0.422425-0.451767I$ $b=-0.055277-0.354087I$	$2.20856+5.29622I$	$-0.10789-6.28296I$
$u=-0.960503+0.654282I$ $a=-0.64027+1.59232I$ $b=\ \ 1.072600+0.162995I$	$2.20856+5.29622I$	$-0.10789-6.28296I$
$u=-0.960503-0.654282I$ $a=-0.422425+0.451767I$ $b=-0.055277+0.354087I$	$2.20856-5.29622I$	$-0.10789+6.28296I$
$u=-0.960503-0.654282I$ $a=-0.64027-1.59232I$ $b=\ \ 1.072600-0.162995I$	$2.20856-5.29622I$	$-0.10789+6.28296I$
$u=\ \ 0.977539+0.749941I$ $a=\ \ 0.252677-0.865283I$ $b=\ \ 0.767790+0.810448I$	$8.92422-4.73566I$	$6.88636+2.91588I$
$u=\ \ 0.977539+0.749941I$ $a=\ \ 2.43403+1.75259I$ $b=-1.49199+0.01594I$	$8.92422-4.73566I$	$6.88636+2.91588I$
$u=\ \ 0.977539-0.749941I$ $a=\ \ 0.252677+0.865283I$ $b=\ \ 0.767790-0.810448I$	$8.92422+4.73566I$	$6.88636-2.91588I$
$u=\ \ 0.977539-0.749941I$ $a=\ \ 2.43403-1.75259I$ $b=-1.49199-0.01594I$	$8.92422+4.73566I$	$6.88636-2.91588I$
$u=-0.059947+0.622852I$ $a=\ \ 0.761202+0.086440I$ $b=-0.568590-0.799912I$	$5.64493+2.67607I$	$7.61139-3.32415I$
$u=-0.059947+0.622852I$ $a=-2.80109+0.48436I$ $b=\ \ 1.43548+0.10364I$	$5.64493+2.67607I$	$7.61139-3.32415I$

Solutions to I_4^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.059947 - 0.622852I$ $a = 0.761202 - 0.086440I$ $b = -0.568590 + 0.799912I$	$5.64493 - 2.67607I$	$7.61139 + 3.32415I$
$u = -0.059947 - 0.622852I$ $a = -2.80109 - 0.48436I$ $b = 1.43548 - 0.10364I$	$5.64493 - 2.67607I$	$7.61139 + 3.32415I$

V. $I_5^u = \langle b+1,\ a+u-1,\ u^4+1\rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 8$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_5^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.707107 + 0.707107I$ $a = 0.292893 - 0.707107I$ $b = -1.00000$	4.93480	8.00000
$u = 0.707107 - 0.707107I$ $a = 0.292893 + 0.707107I$ $b = -1.00000$	4.93480	8.00000
$u = -0.707107 + 0.707107I$ $a = 1.70711 - 0.70711I$ $b = -1.00000$	4.93480	8.00000
$u = -0.707107 - 0.707107I$ $a = 1.70711 + 0.70711I$ $b = -1.00000$	4.93480	8.00000

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

(i) Arc colorings

$a_2 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$

$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$

$a_8 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$

$a_3 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$

$a_9 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$

$a_4 = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$

$a_1 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$

$a_{11} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$

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

$a_{10} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$

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

$a_{12} = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_3 c_4, c_7, c_8 c_{11}, c_{12}	$u+1$
c_5, c_6, c_{10}	u
c_9	$u-1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_7, c_8 c_9, c_{11}, c_{12}	$y - 1$
c_5, c_6, c_{10}	y

(vi) Complex Volumes and Cusp Shapes

Solutions to I_6^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.00000$ $a = -1.00000$ $b = 0$	-1.64493	-6.00000

VII. $I^u_7 = \langle b-1,\ a-1,\ u-1\rangle$

(i) Arc colorings

$$a_2 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 2 \\ 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$$

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

$$a_{12} = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -6$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_3 c_5, c_6, c_7 c_8, c_{10}	$u + 1$
c_4, c_{11}, c_{12}	u
c_9	$u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_5, c_6, c_7 c_8, c_9, c_{10}	$y - 1$
c_4, c_{11}, c_{12}	y

(vi) Complex Volumes and Cusp Shapes

Solutions to I^u_7		$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	1.00000		
$a =$	1.00000	-1.64493	-6.00000
$b =$	1.00000		

VIII. $I_8^u = \langle b-1,\ a,\ u-1 \rangle$

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 0$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_5, c_6 c_7, c_{11}, c_{12}	$u - 1$
c_2, c_3, c_4 c_8, c_9, c_{10}	$u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_8, c_9 c_{10}, c_{11}, c_{12}	$y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_8^u		$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	1.00000		
$a =$	0	0	0
$b =$	1.00000		

IX. $I_9^u = \langle b-1,\ a-2,\ u+1 \rangle$

(i) Arc colorings

$a_2 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$

$a_7 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$

$a_8 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$

$a_3 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$

$a_9 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$

$a_4 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$

$a_1 = \begin{pmatrix} -1 \\ -1 \end{pmatrix}$

$a_{11} = \begin{pmatrix} 2 \\ 1 \end{pmatrix}$

$a_6 = \begin{pmatrix} 3 \\ 1 \end{pmatrix}$

$a_{10} = \begin{pmatrix} -1 \\ 0 \end{pmatrix}$

$a_5 = \begin{pmatrix} 2 \\ 1 \end{pmatrix}$

$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 0$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_3 c_5, c_6, c_9 c_{11}, c_{12}	$u - 1$
c_4, c_7, c_8 c_{10}	$u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_4, c_5, c_6 c_7, c_8, c_9 c_{10}, c_{11}, c_{12}	$y - 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_9^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = \quad 2.00000$ $b = \quad 1.00000$	0	0

X. $\boldsymbol{I_1^v = \langle a,\ b+1,\ v+1\rangle}$

(i) Arc colorings

$$a_2 = \begin{pmatrix}-1\\0\end{pmatrix}$$

$$a_7 = \begin{pmatrix}1\\0\end{pmatrix}$$

$$a_8 = \begin{pmatrix}1\\0\end{pmatrix}$$

$$a_3 = \begin{pmatrix}-1\\0\end{pmatrix}$$

$$a_9 = \begin{pmatrix}1\\0\end{pmatrix}$$

$$a_4 = \begin{pmatrix}-1\\0\end{pmatrix}$$

$$a_1 = \begin{pmatrix}-1\\0\end{pmatrix}$$

$$a_{11} = \begin{pmatrix}0\\-1\end{pmatrix}$$

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

$$a_{10} = \begin{pmatrix}1\\0\end{pmatrix}$$

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

$$a_{12} = \begin{pmatrix}-1\\-1\end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 12$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1, c_2, c_3 c_7, c_8, c_9	u
c_4, c_{10}	$u - 1$
c_5, c_6, c_{11} c_{12}	$u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_2, c_3 c_7, c_8, c_9	y
c_4, c_5, c_6 c_{10}, c_{11}, c_{12}	$y-1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^v	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$v = -1.00000$ $a = \quad 0$ $b = -1.00000$	3.28987	12.0000

XI. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$u(u-1)^2(u+1)^2(u^2+1)^2(u^2-u+2)^2$ $\cdot((u^5+u^4+4u^3+2u^2+4u+1)^2)(u^{16}+5u^{15}+\cdots-4u^2+1)^2$ $\cdot(u^{34}+11u^{33}+\cdots-16u+4)$
c_2, c_7	$u(u-1)(u+1)^3(u^4+1)(u^4-u^2+2)(u^5-u^4+2u-1)^2$ $\cdot((u^{16}-u^{15}+\cdots-2u+1)^2)(u^{34}+3u^{33}+\cdots-8u-2)$
c_3	$u(u-1)(u+1)^3(u^4+1)(u^4-u^2+2)(u^5+4u^4+\cdots+4u-4)^2$ $\cdot((u^8-2u^7+3u^6+u^4+2u^2-2u+1)^4)(u^{34}-3u^{33}+\cdots+848u-296)$
c_4, c_{10}	$u(u-1)^5(u+1)^7$ $\cdot(u^{10}-u^9-4u^8+4u^7+4u^6-3u^5-3u^4-u^3+9u^2-2u-5)$ $\cdot(u^{32}-u^{31}+\cdots+6u+3)(u^{34}-u^{33}+\cdots+u+1)$
c_5, c_6, c_{11} c_{12}	$u(u-1)^6(u+1)^6$ $\cdot(u^{10}-u^9-4u^8+4u^7+4u^6-3u^5-3u^4-u^3+9u^2-2u-5)$ $\cdot(u^{32}-u^{31}+\cdots+6u+3)(u^{34}-u^{33}+\cdots+u+1)$
c_8	$u(u+1)^4(u^2+1)^2(u^2+u+2)^2(u^5+u^4+4u^3+2u^2+4u+1)^2$ $\cdot((u^{16}+5u^{15}+\cdots-4u^2+1)^2)(u^{34}+11u^{33}+\cdots-16u+4)$
c_9	$u(u-1)^3(u+1)(u^4+1)(u^4-u^2+2)(u^5-u^4+\cdots+4u-1)^2$ $\cdot((u^{16}-5u^{15}+\cdots-4u^2+1)^2)(u^{34}+21u^{33}+\cdots-40228u-4366)$

XII. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1, c_8	$y(y-1)^4(y+1)^4(y^2+3y+4)^2$ $\cdot((y^5+7y^4+20y^3+26y^2+12y-1)^2)(y^{16}+11y^{15}+\cdots-8y+1)^2$ $\cdot(y^{34}+25y^{33}+\cdots-288y+16)$
c_2, c_7	$y(y-1)^4(y^2+1)^2(y^2-y+2)^2(y^5-y^4+4y^3-2y^2+4y-1)^2$ $\cdot((y^{16}-5y^{15}+\cdots-4y^2+1)^2)(y^{34}-11y^{33}+\cdots+16y+4)$
c_3	$y(y-1)^4(y^2+1)^2(y^2-y+2)^2$ $\cdot(y^5+2y^4+17y^3+23y^2+88y-16)^2$ $\cdot(y^8+2y^7+11y^6+10y^5+7y^4+10y^3+6y^2+1)^4$ $\cdot(y^{34}+y^{33}+\cdots+674464y+87616)$
c_4, c_5, c_6 c_{10}, c_{11}, c_{12}	$y(y-1)^{12}(y^{10}-9y^9+\cdots-94y+25)(y^{32}-27y^{31}+\cdots+102y+9)$ $\cdot(y^{34}-43y^{33}+\cdots-9y+1)$
c_9	$y(y-1)^4(y^2+1)^2(y^2-y+2)^2$ $\cdot((y^5+7y^4+20y^3+26y^2+12y-1)^2)(y^{16}+11y^{15}+\cdots-8y+1)^2$ $\cdot(y^{34}+13y^{33}+\cdots+56365904y+19061956)$