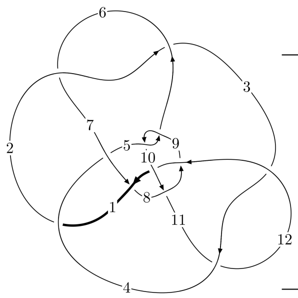
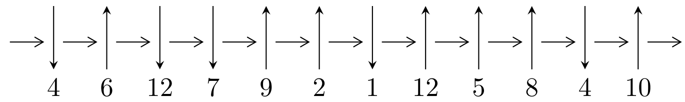
$12n_{0816}$ ($K12n_{0816}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$
\begin{aligned}
I_1^u = \langle & 1.31329 \times 10^{500} u^{97} + 8.98067 \times 10^{500} u^{96} + \cdots + 8.24393 \times 10^{497} b + 8.17734 \times 10^{500}, \\
& 9.50553 \times 10^{500} u^{97} + 6.50354 \times 10^{501} u^{96} + \cdots + 8.24393 \times 10^{497} a + 5.99735 \times 10^{501},\ u^{98} + 7u^{97} + \cdots + 23u \\
I_2^u = \langle & -6.44895 \times 10^{46} u^{35} + 5.28645 \times 10^{47} u^{34} + \cdots + 1.75776 \times 10^{44} b + 1.79988 \times 10^{46}, \\
& -2.46365 \times 10^{46} u^{35} + 2.08684 \times 10^{47} u^{34} + \cdots + 1.75776 \times 10^{44} a + 5.21540 \times 10^{46}, \\
& u^{36} - 9u^{35} + \cdots - 14u + 1 \rangle \\
I_3^u = \langle & -u^3 + 4u^2 + 2b - 4u - 3,\ u^3 - 4u^2 + a + 5u,\ u^4 - 3u^3 + 2u^2 + 3u + 1 \rangle \\
I_4^u = \langle & b^2 - b + 1,\ a,\ u - 1 \rangle
\end{aligned}
$$

* 4 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 140 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. $\boldsymbol{I_1^u = \langle 1.31 \times 10^{500} u^{97} + 8.98 \times 10^{500} u^{96} + \cdots + 8.24 \times 10^{497} b + 8.18 \times 10^{500},\ 9.51 \times 10^{500} u^{97} + 6.50 \times 10^{501} u^{96} + \cdots + 8.24 \times 10^{497} a + 6.00 \times 10^{501},\ u^{98} + 7u^{97} + \cdots + 23u + 1 \rangle}$

(i) Arc colorings

$$a_{10} = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_1 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$
$$a_5 = \begin{pmatrix} -1153.03u^{97} - 7888.88u^{96} + \cdots - 121463.u - 7274.87 \\ -159.304u^{97} - 1089.37u^{96} + \cdots - 16618.9u - 991.922 \end{pmatrix}$$
$$a_9 = \begin{pmatrix} 103.914u^{97} + 710.905u^{96} + \cdots + 10896.2u + 647.011 \\ -291.954u^{97} - 1997.45u^{96} + \cdots - 30797.8u - 1846.86 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} -198.268u^{97} - 1356.61u^{96} + \cdots - 20919.8u - 1252.01 \\ 29.8923u^{97} + 204.433u^{96} + \cdots + 3152.92u + 189.763 \end{pmatrix}$$
$$a_8 = \begin{pmatrix} 395.868u^{97} + 2708.36u^{96} + \cdots + 41694.0u + 2493.87 \\ -291.954u^{97} - 1997.45u^{96} + \cdots - 30797.8u - 1846.86 \end{pmatrix}$$
$$a_7 = \begin{pmatrix} 113.875u^{97} + 779.009u^{96} + \cdots + 11942.8u + 709.727 \\ -284.872u^{97} - 1949.02u^{96} + \cdots - 30054.1u - 1802.26 \end{pmatrix}$$
$$a_4 = \begin{pmatrix} -576.546u^{97} - 3943.09u^{96} + \cdots - 60413.0u - 3613.27 \\ 59.4127u^{97} + 406.296u^{96} + \cdots + 6243.88u + 375.722 \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -517.134u^{97} - 3536.80u^{96} + \cdots - 54169.1u - 3237.55 \\ 59.4127u^{97} + 406.296u^{96} + \cdots + 6243.88u + 375.722 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} -606.313u^{97} - 4147.30u^{96} + \cdots - 63505.5u - 3796.33 \\ 124.345u^{97} + 850.757u^{96} + \cdots + 13140.3u + 789.560 \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} 535.816u^{97} + 3668.17u^{96} + \cdots + 56813.0u + 3403.58 \\ -136.440u^{97} - 933.779u^{96} + \cdots - 14503.0u - 872.106 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -468.986u^{97} - 3203.64u^{96} + \cdots - 48507.0u - 2901.05$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{98} - 7u^{97} + \cdots - 25602u + 2657$
c_2, c_6	$u^{98} - 3u^{97} + \cdots - 216906u + 13157$
c_3, c_{11}	$u^{98} + 2u^{97} + \cdots + 26608u + 508$
c_4	$u^{98} - 5u^{97} + \cdots - 433u + 23$
c_5, c_9	$u^{98} + 42u^{96} + \cdots + 140656u + 34228$
c_7	$u^{98} - 7u^{97} + \cdots - 2048u + 64$
c_8	$u^{98} + 20u^{96} + \cdots - 26534568u + 43283857$
c_{10}	$u^{98} + 12u^{97} + \cdots - 2720881u + 1109443$
c_{12}	$u^{98} + 7u^{97} + \cdots + 23u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{98} - 55y^{97} + \cdots - 751130346y + 7059649$
c_2, c_6	$y^{98} + 103y^{97} + \cdots - 27972220618y + 173106649$
c_3, c_{11}	$y^{98} - 94y^{97} + \cdots + 1054871872y + 258064$
c_4	$y^{98} + 9y^{97} + \cdots - 26167y + 529$
c_5, c_9	$y^{98} + 84y^{97} + \cdots + 44846020736y + 1171555984$
c_7	$y^{98} - 3y^{97} + \cdots - 30720y + 4096$
c_8	$y^{98} + 40y^{97} + \cdots + 141207617788579830y + 1873492276796449$
c_{10}	$y^{98} + 36y^{97} + \cdots + 14973133605321y + 1230863770249$
c_{12}	$y^{98} - 21y^{97} + \cdots - 79y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.297779 + 0.962394I$ $a = 1.022180 + 0.169332I$ $b = 1.58919 - 0.84969I$	$-2.44786 + 2.28046I$	0
$u = 0.297779 - 0.962394I$ $a = 1.022180 - 0.169332I$ $b = 1.58919 + 0.84969I$	$-2.44786 - 2.28046I$	0
$u = 1.010880 + 0.161137I$ $a = -0.213420 - 1.269340I$ $b = -0.21564 - 1.61424I$	$-7.52661 + 5.04383I$	0
$u = 1.010880 - 0.161137I$ $a = -0.213420 + 1.269340I$ $b = -0.21564 + 1.61424I$	$-7.52661 - 5.04383I$	0
$u = -0.621792 + 0.819445I$ $a = 0.582418 + 0.765895I$ $b = 0.344815 + 0.764548I$	$-8.25028 - 2.12975I$	0
$u = -0.621792 - 0.819445I$ $a = 0.582418 - 0.765895I$ $b = 0.344815 - 0.764548I$	$-8.25028 + 2.12975I$	0
$u = -0.896403 + 0.592844I$ $a = 0.966816 + 0.375746I$ $b = 0.199042 + 0.683208I$	$-7.20927 - 3.04632I$	0
$u = -0.896403 - 0.592844I$ $a = 0.966816 - 0.375746I$ $b = 0.199042 - 0.683208I$	$-7.20927 + 3.04632I$	0
$u = 0.875671 + 0.627105I$ $a = 0.247782 + 0.053577I$ $b = 0.979738 + 0.820171I$	$-0.46733 + 5.54468I$	0
$u = 0.875671 - 0.627105I$ $a = 0.247782 - 0.053577I$ $b = 0.979738 - 0.820171I$	$-0.46733 - 5.54468I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.915061 + 0.054031I$ $a = -0.273898 - 0.828206I$ $b = 0.034152 - 1.395890I$	$3.75773 + 1.09085I$	0
$u = -0.915061 - 0.054031I$ $a = -0.273898 + 0.828206I$ $b = 0.034152 + 1.395890I$	$3.75773 - 1.09085I$	0
$u = 0.876386 + 0.637072I$ $a = 0.965490 + 0.211185I$ $b = 1.312150 - 0.279787I$	$0.32102 + 5.18997I$	0
$u = 0.876386 - 0.637072I$ $a = 0.965490 - 0.211185I$ $b = 1.312150 + 0.279787I$	$0.32102 - 5.18997I$	0
$u = -0.792067 + 0.364533I$ $a = 1.064860 - 0.751526I$ $b = 0.849227 - 0.435183I$	$-1.46403 - 8.46772I$	0
$u = -0.792067 - 0.364533I$ $a = 1.064860 + 0.751526I$ $b = 0.849227 + 0.435183I$	$-1.46403 + 8.46772I$	0
$u = -0.672626 + 0.905633I$ $a = 1.222900 - 0.347747I$ $b = 2.49118 + 0.26599I$	$-12.4233 - 7.4999I$	0
$u = -0.672626 - 0.905633I$ $a = 1.222900 + 0.347747I$ $b = 2.49118 - 0.26599I$	$-12.4233 + 7.4999I$	0
$u = -0.502964 + 0.672687I$ $a = -0.112785 + 0.315563I$ $b = 0.638997 + 0.143982I$	$-2.47697 + 1.40445I$	0
$u = -0.502964 - 0.672687I$ $a = -0.112785 - 0.315563I$ $b = 0.638997 - 0.143982I$	$-2.47697 - 1.40445I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.902378+0.740032I$ $a=-0.476203+1.088780I$ $b=-1.62606-0.36286I$	$-12.39800+2.77753I$	0
$u=-0.902378-0.740032I$ $a=-0.476203-1.088780I$ $b=-1.62606+0.36286I$	$-12.39800-2.77753I$	0
$u=-0.719806+0.334419I$ $a=\ \ 0.839821-0.983498I$ $b=\ \ 0.857987-0.394289I$	$-3.32757-0.74133I$	0
$u=-0.719806-0.334419I$ $a=\ \ 0.839821+0.983498I$ $b=\ \ 0.857987+0.394289I$	$-3.32757+0.74133I$	0
$u=\ \ 0.815536+0.923671I$ $a=\ \ 0.211361-0.892570I$ $b=-0.292264+0.219911I$	$0.147768+0.601523I$	0
$u=\ \ 0.815536-0.923671I$ $a=\ \ 0.211361+0.892570I$ $b=-0.292264-0.219911I$	$0.147768-0.601523I$	0
$u=-0.993894+0.739046I$ $a=\ \ 0.372429+0.295295I$ $b=\ \ 0.168599-0.122446I$	$-1.37363-6.86287I$	0
$u=-0.993894-0.739046I$ $a=\ \ 0.372429-0.295295I$ $b=\ \ 0.168599+0.122446I$	$-1.37363+6.86287I$	0
$u=\ \ 0.344938+0.638925I$ $a=\ \ 0.274724+0.765846I$ $b=\ \ 0.163839-0.856175I$	$-0.21248+1.79826I$	0
$u=\ \ 0.344938-0.638925I$ $a=\ \ 0.274724-0.765846I$ $b=\ \ 0.163839+0.856175I$	$-0.21248-1.79826I$	0

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.374511 + 1.218040I$ $a = -1.127910 - 0.152756I$ $b = -1.63102 + 0.44266I$	$-5.94774 + 6.35238I$	0
$u = 0.374511 - 1.218040I$ $a = -1.127910 + 0.152756I$ $b = -1.63102 - 0.44266I$	$-5.94774 - 6.35238I$	0
$u = 0.664993 + 1.095230I$ $a = -1.046210 - 0.547420I$ $b = -1.88449 + 0.56737I$	$-8.39095 - 0.53811I$	0
$u = 0.664993 - 1.095230I$ $a = -1.046210 + 0.547420I$ $b = -1.88449 - 0.56737I$	$-8.39095 + 0.53811I$	0
$u = -0.936379 + 0.874958I$ $a = 1.094090 - 0.548079I$ $b = 2.20657 + 0.71506I$	$-12.4049 - 8.9977I$	0
$u = -0.936379 - 0.874958I$ $a = 1.094090 + 0.548079I$ $b = 2.20657 - 0.71506I$	$-12.4049 + 8.9977I$	0
$u = -0.744621 + 1.043820I$ $a = -1.022590 + 0.676287I$ $b = -1.68981 - 0.63987I$	$-7.71494 - 4.90990I$	0
$u = -0.744621 - 1.043820I$ $a = -1.022590 - 0.676287I$ $b = -1.68981 + 0.63987I$	$-7.71494 + 4.90990I$	0
$u = -1.175390 + 0.516378I$ $a = -0.622936 - 0.849858I$ $b = -1.34008 - 0.54188I$	$-6.12476 + 3.89475I$	0
$u = -1.175390 - 0.516378I$ $a = -0.622936 + 0.849858I$ $b = -1.34008 + 0.54188I$	$-6.12476 - 3.89475I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.328261 + 1.249000I$ $a = 1.25659 - 0.83325I$ $b = 1.299970 + 0.167085I$	$-13.11780 - 1.97601I$	0
$u = -0.328261 - 1.249000I$ $a = 1.25659 + 0.83325I$ $b = 1.299970 - 0.167085I$	$-13.11780 + 1.97601I$	0
$u = -0.601045 + 0.319523I$ $a = -1.47869 + 0.84409I$ $b = -1.006790 + 0.230868I$	$0.46988 - 3.49771I$	0
$u = -0.601045 - 0.319523I$ $a = -1.47869 - 0.84409I$ $b = -1.006790 - 0.230868I$	$0.46988 + 3.49771I$	0
$u = 0.678764 + 0.023481I$ $a = 1.165110 + 0.262883I$ $b = -0.202309 + 0.037094I$	$1.49876 + 0.09907I$	0
$u = 0.678764 - 0.023481I$ $a = 1.165110 - 0.262883I$ $b = -0.202309 - 0.037094I$	$1.49876 - 0.09907I$	0
$u = -0.202651 + 0.646746I$ $a = 0.504766 + 1.251150I$ $b = 0.402736 - 0.412523I$	$-0.38569 + 2.12879I$	0
$u = -0.202651 - 0.646746I$ $a = 0.504766 - 1.251150I$ $b = 0.402736 + 0.412523I$	$-0.38569 - 2.12879I$	0
$u = -0.863600 + 1.019240I$ $a = -0.767920 - 0.879189I$ $b = -0.346321 - 0.321968I$	$-7.46331 - 10.46160I$	0
$u = -0.863600 - 1.019240I$ $a = -0.767920 + 0.879189I$ $b = -0.346321 + 0.321968I$	$-7.46331 + 10.46160I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.217230 + 0.669504I$ $a = -0.112972 + 0.543057I$ $b = -0.167988 - 0.464929I$	$2.32202 + 2.06905I$	0
$u = 1.217230 - 0.669504I$ $a = -0.112972 - 0.543057I$ $b = -0.167988 + 0.464929I$	$2.32202 - 2.06905I$	0
$u = 0.557808 + 0.223218I$ $a = 1.03702 + 1.07809I$ $b = 0.56620 + 1.88391I$	$-2.54420 + 3.14291I$	$2.00000 - 10.38283I$
$u = 0.557808 - 0.223218I$ $a = 1.03702 - 1.07809I$ $b = 0.56620 - 1.88391I$	$-2.54420 - 3.14291I$	$2.00000 + 10.38283I$
$u = 1.304760 + 0.530697I$ $a = 0.136175 - 0.830160I$ $b = -0.0066614 + 0.0625832I$	$0.489098 + 0.388700I$	0
$u = 1.304760 - 0.530697I$ $a = 0.136175 + 0.830160I$ $b = -0.0066614 - 0.0625832I$	$0.489098 - 0.388700I$	0
$u = 0.376700 + 0.454340I$ $a = -3.06674 - 1.14555I$ $b = -0.932034 + 0.551422I$	$-10.42540 + 6.06568I$	$-1.8335 - 15.3637I$
$u = 0.376700 - 0.454340I$ $a = -3.06674 + 1.14555I$ $b = -0.932034 - 0.551422I$	$-10.42540 - 6.06568I$	$-1.8335 + 15.3637I$
$u = 0.554881 + 0.140141I$ $a = 0.27046 + 1.79547I$ $b = 0.453971 - 0.844268I$	$-0.06150 + 2.48943I$	$3.17370 - 4.01834I$
$u = 0.554881 - 0.140141I$ $a = 0.27046 - 1.79547I$ $b = 0.453971 + 0.844268I$	$-0.06150 - 2.48943I$	$3.17370 + 4.01834I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.19386 + 0.86245I$ $a = -0.501291 - 0.565693I$ $b = -1.50989 + 0.01628I$	$-1.87185 + 3.47822I$	0
$u = 1.19386 - 0.86245I$ $a = -0.501291 + 0.565693I$ $b = -1.50989 - 0.01628I$	$-1.87185 - 3.47822I$	0
$u = 1.24300 + 0.89145I$ $a = 0.681143 + 0.699008I$ $b = 1.98865 - 0.52084I$	$-6.59645 + 7.81675I$	0
$u = 1.24300 - 0.89145I$ $a = 0.681143 - 0.699008I$ $b = 1.98865 + 0.52084I$	$-6.59645 - 7.81675I$	0
$u = -0.099402 + 0.428459I$ $a = -2.36898 + 2.26274I$ $b = -1.39345 - 0.42785I$	$-11.61500 + 2.97623I$	$-4.67472 - 1.54835I$
$u = -0.099402 - 0.428459I$ $a = -2.36898 - 2.26274I$ $b = -1.39345 + 0.42785I$	$-11.61500 - 2.97623I$	$-4.67472 + 1.54835I$
$u = -0.416159 + 0.139948I$ $a = -2.18643 + 1.00702I$ $b = -0.590900 + 0.023581I$	$1.41101 - 1.64765I$	$4.38403 + 7.71230I$
$u = -0.416159 - 0.139948I$ $a = -2.18643 - 1.00702I$ $b = -0.590900 - 0.023581I$	$1.41101 + 1.64765I$	$4.38403 - 7.71230I$
$u = -1.27052 + 0.92169I$ $a = 0.688840 - 0.639863I$ $b = 1.87760 + 0.38054I$	$-6.07607 - 2.31012I$	0
$u = -1.27052 - 0.92169I$ $a = 0.688840 + 0.639863I$ $b = 1.87760 - 0.38054I$	$-6.07607 + 2.31012I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.367068 + 0.160217I$ $a = -2.60294 + 2.27563I$ $b = -0.617257 - 0.732831I$	$1.75773 - 1.88898I$	$19.6084 - 9.7659I$
$u = -0.367068 - 0.160217I$ $a = -2.60294 - 2.27563I$ $b = -0.617257 + 0.732831I$	$1.75773 + 1.88898I$	$19.6084 + 9.7659I$
$u = -1.20084 + 1.07188I$ $a = -0.946736 + 0.444946I$ $b = -2.20732 - 0.57872I$	$-12.4887 - 18.1031I$	0
$u = -1.20084 - 1.07188I$ $a = -0.946736 - 0.444946I$ $b = -2.20732 + 0.57872I$	$-12.4887 + 18.1031I$	0
$u = 1.16072 + 1.12461I$ $a = -0.742562 - 0.133966I$ $b = -2.28470 + 0.61290I$	$1.57710 + 7.14701I$	0
$u = 1.16072 - 1.12461I$ $a = -0.742562 + 0.133966I$ $b = -2.28470 - 0.61290I$	$1.57710 - 7.14701I$	0
$u = -1.19450 + 1.10023I$ $a = 0.712857 - 0.499549I$ $b = 2.11446 + 0.79329I$	$-5.99457 - 10.31610I$	0
$u = -1.19450 - 1.10023I$ $a = 0.712857 + 0.499549I$ $b = 2.11446 - 0.79329I$	$-5.99457 + 10.31610I$	0
$u = 0.191209 + 0.306647I$ $a = 1.43023 + 0.62187I$ $b = -0.30448 - 3.78683I$	$-4.46447 + 5.23065I$	$-15.8390 + 3.5168I$
$u = 0.191209 - 0.306647I$ $a = 1.43023 - 0.62187I$ $b = -0.30448 + 3.78683I$	$-4.46447 - 5.23065I$	$-15.8390 - 3.5168I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.90440+1.40261I$ $a=-0.661781+0.425974I$ $b=-2.11701-0.67980I$	$-6.96776+1.62024I$	0
$u=-0.90440-1.40261I$ $a=-0.661781-0.425974I$ $b=-2.11701+0.67980I$	$-6.96776-1.62024I$	0
$u=1.04890+1.34938I$ $a=0.698921+0.255621I$ $b=1.92274-0.86568I$	$-2.66284+5.40803I$	0
$u=1.04890-1.34938I$ $a=0.698921-0.255621I$ $b=1.92274+0.86568I$	$-2.66284-5.40803I$	0
$u=-1.03230+1.39080I$ $a=0.601176-0.727613I$ $b=1.59571+0.41095I$	$-13.3115+9.4190I$	0
$u=-1.03230-1.39080I$ $a=0.601176+0.727613I$ $b=1.59571-0.41095I$	$-13.3115-9.4190I$	0
$u=-0.117543+0.220736I$ $a=-0.98093+4.64440I$ $b=0.282949-0.016428I$	$-0.48485-2.96998I$	$-5.78061-2.76336I$
$u=-0.117543-0.220736I$ $a=-0.98093-4.64440I$ $b=0.282949+0.016428I$	$-0.48485+2.96998I$	$-5.78061+2.76336I$
$u=1.75469+0.35098I$ $a=-0.078590-0.419650I$ $b=-0.97885+1.47115I$	$3.11758+3.82652I$	0
$u=1.75469-0.35098I$ $a=-0.078590+0.419650I$ $b=-0.97885-1.47115I$	$3.11758-3.82652I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = -0.158595 + 0.000579I$ $a = -0.27132 - 5.75775I$ $b = 1.64593 - 0.78163I$	$-2.70884 - 1.02332I$	$1.77227 - 2.30546I$
$u = -0.158595 - 0.000579I$ $a = -0.27132 + 5.75775I$ $b = 1.64593 + 0.78163I$	$-2.70884 + 1.02332I$	$1.77227 + 2.30546I$
$u = -1.40148 + 1.37678I$ $a = -0.884947 + 0.442312I$ $b = -1.91337 - 0.27619I$	$-8.74306 - 7.50542I$	0
$u = -1.40148 - 1.37678I$ $a = -0.884947 - 0.442312I$ $b = -1.91337 + 0.27619I$	$-8.74306 + 7.50542I$	0
$u = -1.87585 + 0.68624I$ $a = -0.099794 + 0.580457I$ $b = -1.19365 - 1.50047I$	$-9.37416 + 1.26969I$	0
$u = -1.87585 - 0.68624I$ $a = -0.099794 - 0.580457I$ $b = -1.19365 + 1.50047I$	$-9.37416 - 1.26969I$	0
$u = 1.86439 + 1.30631I$ $a = 0.100434 + 0.639423I$ $b = 0.465943 - 0.834397I$	$1.74223 + 2.15763I$	0
$u = 1.86439 - 1.30631I$ $a = 0.100434 - 0.639423I$ $b = 0.465943 + 0.834397I$	$1.74223 - 2.15763I$	0

II. $I^u_2 = \langle -6.45 \times 10^{46}u^{35} + 5.29 \times 10^{47}u^{34} + \cdots + 1.76 \times 10^{44}b + 1.80 \times 10^{46},\ -2.46 \times 10^{46}u^{35} + 2.09 \times 10^{47}u^{34} + \cdots + 1.76 \times 10^{44}a + 5.22 \times 10^{46},\ u^{36} - 9u^{35} + \cdots - 14u + 1\rangle$

(i) Arc colorings

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

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

$$a_1 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 140.158u^{35} - 1187.21u^{34} + \cdots + 3524.39u - 296.706 \\ 366.884u^{35} - 3007.49u^{34} + \cdots + 2539.57u - 102.396 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 238.295u^{35} - 1927.86u^{34} + \cdots + 1235.01u - 44.4770 \\ 328.269u^{35} - 2833.09u^{34} + \cdots + 8330.09u - 666.273 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} 563.553u^{35} - 4811.95u^{34} + \cdots + 12684.8u - 991.409 \\ 295.393u^{35} - 2429.91u^{34} + \cdots + 2251.27u - 98.4593 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -89.9730u^{35} + 905.235u^{34} + \cdots - 7095.08u + 621.796 \\ 328.269u^{35} - 2833.09u^{34} + \cdots + 8330.09u - 666.273 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 348.754u^{35} - 2849.01u^{34} + \cdots + 2661.67u - 139.954 \\ 266.407u^{35} - 2283.23u^{34} + \cdots + 6048.60u - 471.972 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 541.938u^{35} - 4736.15u^{34} + \cdots + 16865.3u - 1387.65 \\ -221.527u^{35} + 1946.78u^{34} + \cdots - 7346.51u + 620.328 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 320.411u^{35} - 2789.37u^{34} + \cdots + 9518.75u - 767.324 \\ -221.527u^{35} + 1946.78u^{34} + \cdots - 7346.51u + 620.328 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} 647.693u^{35} - 5541.90u^{34} + \cdots + 13860.9u - 1062.14 \\ 254.012u^{35} - 2185.29u^{34} + \cdots + 6133.90u - 488.778 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 493.207u^{35} - 4306.08u^{34} + \cdots + 13158.1u - 1047.25 \\ -227.149u^{35} + 2008.25u^{34} + \cdots - 7499.57u + 621.554 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 1583.96u^{35} - 13530.4u^{34} + \cdots + 35840.2u - 2796.67$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{36} - 14u^{35} + \cdots - 4u + 1$
c_2	$u^{36} - 3u^{35} + \cdots + 9u + 1$
c_3	$u^{36} + u^{35} + \cdots + 24u + 4$
c_4	$u^{36} - 7u^{35} + \cdots + 23u^2 + 1$
c_5	$u^{36} - u^{35} + \cdots + 24u + 4$
c_6	$u^{36} + 3u^{35} + \cdots - 9u + 1$
c_7	$u^{36} + 2u^{35} + \cdots + 112u + 784$
c_8	$u^{36} - u^{35} + \cdots + 98u + 13$
c_9	$u^{36} + u^{35} + \cdots - 24u + 4$
c_{10}	$u^{36} + u^{34} + \cdots - 2u + 1$
c_{11}	$u^{36} - u^{35} + \cdots - 24u + 4$
c_{12}	$u^{36} - 9u^{35} + \cdots - 14u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{36} - 20y^{35} + \cdots + 14y + 1$
c_2, c_6	$y^{36} + 39y^{35} + \cdots + 11y + 1$
c_3, c_{11}	$y^{36} - 17y^{35} + \cdots + 192y + 16$
c_4	$y^{36} + 5y^{35} + \cdots + 46y + 1$
c_5, c_9	$y^{36} + 25y^{35} + \cdots + 384y + 16$
c_7	$y^{36} + 12y^{35} + \cdots + 3543680y + 614656$
c_8	$y^{36} - 23y^{35} + \cdots - 504y + 169$
c_{10}	$y^{36} + 2y^{35} + \cdots + 12y + 1$
c_{12}	$y^{36} - 15y^{35} + \cdots - 8y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.783910 + 0.567549I$ $a = -1.031160 - 0.365602I$ $b = -1.42007 - 0.16561I$	$1.11632 + 4.34442I$	$4.96433 - 5.45878I$
$u = 0.783910 - 0.567549I$ $a = -1.031160 + 0.365602I$ $b = -1.42007 + 0.16561I$	$1.11632 - 4.34442I$	$4.96433 + 5.45878I$
$u = 0.923228 + 0.255717I$ $a = 0.818859 + 0.911702I$ $b = 0.842409 + 0.343380I$	$-1.13046 + 8.19995I$	$6.40697 - 2.11842I$
$u = 0.923228 - 0.255717I$ $a = 0.818859 - 0.911702I$ $b = 0.842409 - 0.343380I$	$-1.13046 - 8.19995I$	$6.40697 + 2.11842I$
$u = -0.933033 + 0.152736I$ $a = 0.092399 + 0.911581I$ $b = -0.49503 + 1.40427I$	$3.45740 + 0.33361I$	$2.00000 + 2.78678I$
$u = -0.933033 - 0.152736I$ $a = 0.092399 - 0.911581I$ $b = -0.49503 - 1.40427I$	$3.45740 - 0.33361I$	$2.00000 - 2.78678I$
$u = 0.072178 + 0.847312I$ $a = -1.061610 + 0.083248I$ $b = -1.22132 + 1.06933I$	$-3.42025 + 2.44760I$	$-7.56538 - 4.04607I$
$u = 0.072178 - 0.847312I$ $a = -1.061610 - 0.083248I$ $b = -1.22132 - 1.06933I$	$-3.42025 - 2.44760I$	$-7.56538 + 4.04607I$
$u = 0.654359 + 0.525832I$ $a = 0.720318 + 0.799120I$ $b = 1.34910 + 1.19327I$	$-3.02633 + 1.86473I$	$-3.68534 - 5.03423I$
$u = 0.654359 - 0.525832I$ $a = 0.720318 - 0.799120I$ $b = 1.34910 - 1.19327I$	$-3.02633 - 1.86473I$	$-3.68534 + 5.03423I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.769338 + 0.869206I$ $a = -0.136041 + 0.730713I$ $b = 0.426769 - 0.758158I$	$0.74417 + 1.94304I$	0
$u = 0.769338 - 0.869206I$ $a = -0.136041 - 0.730713I$ $b = 0.426769 + 0.758158I$	$0.74417 - 1.94304I$	0
$u = -0.955066 + 0.661677I$ $a = 0.358015 - 0.189666I$ $b = 0.614046 - 0.444675I$	$-2.09816 - 6.94123I$	0
$u = -0.955066 - 0.661677I$ $a = 0.358015 + 0.189666I$ $b = 0.614046 + 0.444675I$	$-2.09816 + 6.94123I$	0
$u = -0.736685 + 0.307532I$ $a = 0.158477 + 1.146740I$ $b = 0.815660 + 0.537024I$	$-2.83927 + 2.26358I$	$-1.13362 - 4.65512I$
$u = -0.736685 - 0.307532I$ $a = 0.158477 - 1.146740I$ $b = 0.815660 - 0.537024I$	$-2.83927 - 2.26358I$	$-1.13362 + 4.65512I$
$u = 0.477491 + 0.168394I$ $a = -1.22747 + 1.77822I$ $b = 0.057881 + 0.200524I$	$1.61441 - 0.99906I$	$7.88978 + 0.68592I$
$u = 0.477491 - 0.168394I$ $a = -1.22747 - 1.77822I$ $b = 0.057881 - 0.200524I$	$1.61441 + 0.99906I$	$7.88978 - 0.68592I$
$u = 0.436590 + 0.243522I$ $a = -0.845760 - 0.680243I$ $b = -0.60906 - 3.74778I$	$-4.25937 + 5.36577I$	$11.6445 - 14.0471I$
$u = 0.436590 - 0.243522I$ $a = -0.845760 + 0.680243I$ $b = -0.60906 + 3.74778I$	$-4.25937 - 5.36577I$	$11.6445 + 14.0471I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.393209 + 0.289851I$ $a = 0.15719 - 2.70525I$ $b = -0.144531 + 0.494841I$	$-0.28530 + 3.27162I$	$6.0438 - 17.3787I$
$u = 0.393209 - 0.289851I$ $a = 0.15719 + 2.70525I$ $b = -0.144531 - 0.494841I$	$-0.28530 - 3.27162I$	$6.0438 + 17.3787I$
$u = 1.11443 + 1.08695I$ $a = 0.751887 + 0.057142I$ $b = 2.33283 - 0.57703I$	$1.14131 + 7.52068I$	0
$u = 1.11443 - 1.08695I$ $a = 0.751887 - 0.057142I$ $b = 2.33283 + 0.57703I$	$1.14131 - 7.52068I$	0
$u = 0.055007 + 0.419156I$ $a = 3.94903 - 0.68109I$ $b = 1.102340 - 0.556965I$	$-10.40340 + 5.53544I$	$-1.71980 + 0.01244I$
$u = 0.055007 - 0.419156I$ $a = 3.94903 + 0.68109I$ $b = 1.102340 + 0.556965I$	$-10.40340 - 5.53544I$	$-1.71980 - 0.01244I$
$u = -1.10224 + 1.29509I$ $a = -0.954080 + 0.431686I$ $b = -1.94135 - 0.32574I$	$-8.98347 - 7.10070I$	0
$u = -1.10224 - 1.29509I$ $a = -0.954080 - 0.431686I$ $b = -1.94135 + 0.32574I$	$-8.98347 + 7.10070I$	0
$u = 1.72237 + 0.31033I$ $a = -0.216278 - 0.476815I$ $b = -0.80304 + 1.44936I$	$3.03372 + 4.42529I$	0
$u = 1.72237 - 0.31033I$ $a = -0.216278 + 0.476815I$ $b = -0.80304 - 1.44936I$	$3.03372 - 4.42529I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.16482 + 1.31553I$ $a = -0.649968 - 0.324635I$ $b = -1.85409 + 0.89277I$	$-2.34572 + 5.63950I$	0
$u = 1.16482 - 1.31553I$ $a = -0.649968 + 0.324635I$ $b = -1.85409 - 0.89277I$	$-2.34572 - 5.63950I$	0
$u = -1.74432 + 0.60395I$ $a = 0.079442 - 0.631620I$ $b = 1.13819 + 1.39043I$	$-9.27344 + 1.23026I$	0
$u = -1.74432 - 0.60395I$ $a = 0.079442 + 0.631620I$ $b = 1.13819 - 1.39043I$	$-9.27344 - 1.23026I$	0
$u = 1.40441 + 1.26419I$ $a = 0.036762 - 0.836323I$ $b = -0.190721 + 0.293793I$	$0.769313 + 0.940904I$	0
$u = 1.40441 - 1.26419I$ $a = 0.036762 + 0.836323I$ $b = -0.190721 - 0.293793I$	$0.769313 - 0.940904I$	0

III.

$$I_3^u = \langle -u^3 + 4u^2 + 2b - 4u - 3,\ u^3 - 4u^2 + a + 5u,\ u^4 - 3u^3 + 2u^2 + 3u + 1\rangle$$

(i) Arc colorings

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

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

$$a_1 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -u^3 + 4u^2 - 5u \\ \frac{1}{2}u^3 - 2u^2 + 2u + \frac{3}{2} \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -3u^3 + 10u^2 - 9u - 6 \\ 1 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -2u^3 + 6u^2 - 4u - 6 \\ -\frac{1}{2}u^3 + u^2 - u + \frac{1}{2} \end{pmatrix}$$

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

$$a_7 = \begin{pmatrix} -3u^3 + 10u^2 - 9u - 7 \\ 1 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} \frac{3}{2}u^3 - 6u^2 + 9u - \frac{5}{2} \\ -u^3 + 3u^2 - 3u - 1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} \frac{1}{2}u^3 - 3u^2 + 6u - \frac{7}{2} \\ -u^3 + 3u^2 - 3u - 1 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -\frac{1}{2}u^3 + u^2 - \frac{5}{2} \\ -u \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -7u^3 + 24u^2 - 24u - 12 \\ u^3 - 3u^2 + 3u + 3 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 17u^3 - 53u^2 + 53u + 19$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1, c_{10}, c_{12}	$y^4 - 5y^3 + 24y^2 - 5y + 1$
c_2, c_6	$(y^2 + y + 1)^2$
c_3, c_5, c_9 c_{11}	$(y^2 + 3y + 4)^2$
c_4	$(y^2 + 5y + 1)^2$
c_7	y^4
c_8	$(y - 1)^4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.395644 + 0.228425I$ $a = 2.39564 - 1.96048I$ $b = 0.500000 + 0.866025I$	$1.64493 - 2.02988I$	$-7.5000 + 23.3072I$
$u = -0.395644 - 0.228425I$ $a = 2.39564 + 1.96048I$ $b = 0.500000 - 0.866025I$	$1.64493 + 2.02988I$	$-7.5000 - 23.3072I$
$u = 1.89564 + 1.09445I$ $a = 0.104356 + 0.637600I$ $b = 0.500000 - 0.866025I$	$1.64493 + 2.02988I$	$-7.5000 + 16.3790I$
$u = 1.89564 - 1.09445I$ $a = 0.104356 - 0.637600I$ $b = 0.500000 + 0.866025I$	$1.64493 - 2.02988I$	$-7.5000 - 16.3790I$

IV. $I_4^u = \langle b^2 - b + 1,\ a,\ u - 1 \rangle$

(i) Arc colorings

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

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

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

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

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

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

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

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

$a_4 = \begin{pmatrix} b \\ 0 \end{pmatrix}$

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

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

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= 4b + 4$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

	Solutions to I_4^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u =$	1.00000		
$a =$	0	$1.64493 - 2.02988I$	$6.00000 + 3.46410I$
$b =$	$0.500000 + 0.866025I$		
$u =$	1.00000		
$a =$	0	$1.64493 + 2.02988I$	$6.00000 - 3.46410I$
$b =$	$0.500000 - 0.866025I$		

V. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^2-u+1)(u^4+3u^3+\cdots-3u+1)(u^{36}-14u^{35}+\cdots-4u+1)$ $\cdot(u^{98}-7u^{97}+\cdots-25602u+2657)$
c_2	$((u^2+u+1)^3)(u^{36}-3u^{35}+\cdots+9u+1)$ $\cdot(u^{98}-3u^{97}+\cdots-216906u+13157)$
c_3	$u^2(u^2+u+2)^2(u^{36}+u^{35}+\cdots+24u+4)$ $\cdot(u^{98}+2u^{97}+\cdots+26608u+508)$
c_4	$(u^2-u+1)(u^4+5u^2+1)(u^{36}-7u^{35}+\cdots+23u^2+1)$ $\cdot(u^{98}-5u^{97}+\cdots-433u+23)$
c_5	$u^2(u^2+u+2)^2(u^{36}-u^{35}+\cdots+24u+4)$ $\cdot(u^{98}+42u^{96}+\cdots+140656u+34228)$
c_6	$((u^2-u+1)^3)(u^{36}+3u^{35}+\cdots-9u+1)$ $\cdot(u^{98}-3u^{97}+\cdots-216906u+13157)$
c_7	$u^6(u^{36}+2u^{35}+\cdots+112u+784)(u^{98}-7u^{97}+\cdots-2048u+64)$
c_8	$((u+1)^6)(u^{36}-u^{35}+\cdots+98u+13)$ $\cdot(u^{98}+20u^{96}+\cdots-26534568u+43283857)$
c_9	$u^2(u^2-u+2)^2(u^{36}+u^{35}+\cdots-24u+4)$ $\cdot(u^{98}+42u^{96}+\cdots+140656u+34228)$
c_{10}	$((u-1)^2)(u^4+3u^3+\cdots-3u+1)(u^{36}+u^{34}+\cdots-2u+1)$ $\cdot(u^{98}+12u^{97}+\cdots-2720881u+1109443)$
c_{11}	$u^2(u^2-u+2)^2(u^{36}-u^{35}+\cdots-24u+4)$ $\cdot(u^{98}+2u^{97}+\cdots+26608u+508)$
c_{12}	$((u-1)^2)(u^4-3u^3+\cdots+3u+1)(u^{36}-9u^{35}+\cdots-14u+1)$ $\cdot(u^{98}+7u^{97}+\cdots+23u+1)$

VI. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^2+y+1)(y^4-5y^3+\cdots-5y+1)(y^{36}-20y^{35}+\cdots+14y+1)$ $\cdot(y^{98}-55y^{97}+\cdots-751130346y+7059649)$
c_2, c_6	$((y^2+y+1)^3)(y^{36}+39y^{35}+\cdots+11y+1)$ $\cdot(y^{98}+103y^{97}+\cdots-27972220618y+173106649)$
c_3, c_{11}	$y^2(y^2+3y+4)^2(y^{36}-17y^{35}+\cdots+192y+16)$ $\cdot(y^{98}-94y^{97}+\cdots+1054871872y+258064)$
c_4	$(y^2+y+1)(y^2+5y+1)^2(y^{36}+5y^{35}+\cdots+46y+1)$ $\cdot(y^{98}+9y^{97}+\cdots-26167y+529)$
c_5, c_9	$y^2(y^2+3y+4)^2(y^{36}+25y^{35}+\cdots+384y+16)$ $\cdot(y^{98}+84y^{97}+\cdots+44846020736y+1171555984)$
c_7	$y^6(y^{36}+12y^{35}+\cdots+3543680y+614656)$ $\cdot(y^{98}-3y^{97}+\cdots-30720y+4096)$
c_8	$((y-1)^6)(y^{36}-23y^{35}+\cdots-504y+169)$ $\cdot(y^{98}+40y^{97}+\cdots+141207617788579830y+1873492276796449)$
c_{10}	$((y-1)^2)(y^4-5y^3+\cdots-5y+1)(y^{36}+2y^{35}+\cdots+12y+1)$ $\cdot(y^{98}+36y^{97}+\cdots+14973133605321y+1230863770249)$
c_{12}	$((y-1)^2)(y^4-5y^3+\cdots-5y+1)(y^{36}-15y^{35}+\cdots-8y+1)$ $\cdot(y^{98}-21y^{97}+\cdots-79y+1)$