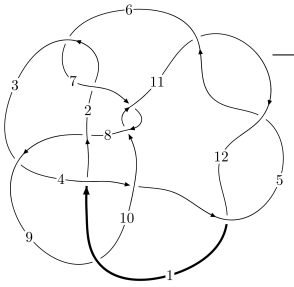
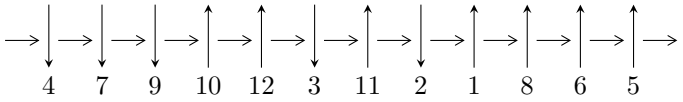
$12a_{1055}$ $(K12a_{1055})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & -2.17270 \times 10^{674} u^{143} + 1.84276 \times 10^{675} u^{142} + \cdots + 2.58449 \times 10^{677} b + 5.69888 \times 10^{678}, \\ & 5.38072 \times 10^{678} u^{143} + 8.23180 \times 10^{678} u^{142} + \cdots + 2.55606 \times 10^{680} a - 2.46598 \times 10^{681}, \\ & u^{144} + u^{143} + \cdots - 5896u + 989 \rangle \\ I_2^u = \langle & 2.35537 \times 10^{30} u^{39} + 1.05919 \times 10^{30} u^{38} + \cdots + 2.44460 \times 10^{29} b - 7.09475 \times 10^{30}, \\ & - 7.27177 \times 10^{30} u^{39} - 1.23813 \times 10^{31} u^{38} + \cdots + 2.44460 \times 10^{29} a + 2.34572 \times 10^{30},\ u^{40} + 2u^{39} + \cdots + 2u + \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 184 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. $\boldsymbol{I_1^u = \langle -2.17 \times 10^{674} u^{143} + 1.84 \times 10^{675} u^{142} + \cdots + 2.58 \times 10^{677} b + 5.70 \times 10^{678},\ 5.38 \times 10^{678} u^{143} + 8.23 \times 10^{678} u^{142} + \cdots + 2.56 \times 10^{680} a - 2.47 \times 10^{681},\ u^{144} + u^{143} + \cdots - 5896u + 989 \rangle}$

(i) Arc colorings

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

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

$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} -0.0210508u^{143} - 0.0322050u^{142} + \cdots - 109.801u + 9.64757 \\ 0.000840669u^{143} - 0.00713005u^{142} + \cdots + 103.422u - 22.0503 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 0.0253537u^{143} + 0.0104650u^{142} + \cdots + 455.891u - 94.6977 \\ 0.00283709u^{143} + 0.00148924u^{142} + \cdots + 18.9687u - 4.22269 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} 0.0225166u^{143} + 0.00897573u^{142} + \cdots + 436.922u - 90.4750 \\ 0.00283709u^{143} + 0.00148924u^{142} + \cdots + 18.9687u - 4.22269 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} -0.0196348u^{143} - 0.0664906u^{142} + \cdots + 301.113u - 86.8414 \\ -0.0258564u^{143} - 0.0394073u^{142} + \cdots - 111.551u + 11.5497 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -0.0676036u^{143} - 0.105365u^{142} + \cdots - 317.722u + 28.5588 \\ -0.00635388u^{143} + 0.00430054u^{142} + \cdots - 146.861u + 30.0276 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -0.0281418u^{143} - 0.0439491u^{142} + \cdots - 131.963u + 9.36949 \\ -0.00598204u^{143} - 0.0163303u^{142} + \cdots + 60.8374u - 17.7264 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} -0.0195811u^{143} + 0.00160936u^{142} + \cdots - 476.589u + 101.810 \\ -0.000614508u^{143} + 0.000419443u^{142} + \cdots - 14.7609u + 5.86952 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 0.0796632u^{143} + 0.130380u^{142} + \cdots + 238.971u - 3.85049 \\ 0.0103227u^{143} + 0.00404013u^{142} + \cdots + 172.885u - 34.7918 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.0628033u^{143} + 0.00950011u^{142} + \cdots + 1209.64u - 250.992$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{144} - 5u^{143} + \cdots - 106u + 17$
c_2, c_6	$u^{144} - u^{143} + \cdots + 5896u + 989$
c_3	$u^{144} + u^{143} + \cdots - 431616u + 85504$
c_4	$u^{144} - u^{143} + \cdots + 545u + 307$
c_5, c_{11}, c_{12}	$u^{144} - u^{143} + \cdots + 2435u + 193$
c_7, c_{10}	$u^{144} - 7u^{143} + \cdots + 126358u + 11033$
c_8	$u^{144} + u^{143} + \cdots + 222158u + 28393$
c_9	$u^{144} - 3u^{143} + \cdots - 94488u + 22681$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{144} + 17y^{143} + \cdots + 8926y + 289$
c_2, c_6	$y^{144} + 65y^{143} + \cdots + 23149068y + 978121$
c_3	$y^{144} - 5y^{143} + \cdots - 279517724672y + 7310934016$
c_4	$y^{144} + 51y^{143} + \cdots + 4212805y + 94249$
c_5, c_{11}, c_{12}	$y^{144} + 161y^{143} + \cdots + 3654383y + 37249$
c_7, c_{10}	$y^{144} + 87y^{143} + \cdots + 4474494936y + 121727089$
c_8	$y^{144} + 25y^{143} + \cdots + 51876294512y + 806162449$
c_9	$y^{144} + 37y^{143} + \cdots + 31337234260y + 514427761$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.517855 + 0.858761I$ $a = 1.07131 - 1.17568I$ $b = 0.422535 - 0.489625I$	$-1.32577 - 2.09615I$	0
$u = 0.517855 - 0.858761I$ $a = 1.07131 + 1.17568I$ $b = 0.422535 + 0.489625I$	$-1.32577 + 2.09615I$	0
$u = -0.355540 + 0.926995I$ $a = -0.92831 - 1.29737I$ $b = 0.284858 - 0.363499I$	$-2.00130 + 1.43707I$	0
$u = -0.355540 - 0.926995I$ $a = -0.92831 + 1.29737I$ $b = 0.284858 + 0.363499I$	$-2.00130 - 1.43707I$	0
$u = -0.228469 + 0.962555I$ $a = -0.523580 - 1.184250I$ $b = -0.509620 - 0.276973I$	$4.12127 + 0.74656I$	0
$u = -0.228469 - 0.962555I$ $a = -0.523580 + 1.184250I$ $b = -0.509620 + 0.276973I$	$4.12127 - 0.74656I$	0
$u = 0.063001 + 1.022290I$ $a = 0.375022 - 1.209370I$ $b = -0.184033 - 0.290733I$	$4.32694 + 0.06920I$	0
$u = 0.063001 - 1.022290I$ $a = 0.375022 + 1.209370I$ $b = -0.184033 + 0.290733I$	$4.32694 - 0.06920I$	0
$u = -0.424519 + 0.872191I$ $a = 0.956076 - 0.683640I$ $b = -0.09268 - 2.12496I$	$-3.24788 + 4.70970I$	0
$u = -0.424519 - 0.872191I$ $a = 0.956076 + 0.683640I$ $b = -0.09268 + 2.12496I$	$-3.24788 - 4.70970I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.427690+0.843847I$ $a=-1.149220+0.698741I$ $b=\ \ 1.25378+1.49091I$	$-3.33926-1.12138I$	0
$u=-0.427690-0.843847I$ $a=-1.149220-0.698741I$ $b=\ \ 1.25378-1.49091I$	$-3.33926+1.12138I$	0
$u=-1.013940+0.328197I$ $a=\ \ 0.700021-0.866564I$ $b=-0.01062-1.73100I$	$-3.04638-8.74887I$	0
$u=-1.013940-0.328197I$ $a=\ \ 0.700021+0.866564I$ $b=-0.01062+1.73100I$	$-3.04638+8.74887I$	0
$u=\ \ 1.027860+0.283936I$ $a=-0.400907-0.889539I$ $b=\ \ 0.36679-1.72986I$	$-4.61579+0.14727I$	0
$u=\ \ 1.027860-0.283936I$ $a=-0.400907+0.889539I$ $b=\ \ 0.36679+1.72986I$	$-4.61579-0.14727I$	0
$u=-0.442077+0.972988I$ $a=\ \ 1.158990-0.636061I$ $b=-1.026780-0.947011I$	$-2.97543+5.01417I$	0
$u=-0.442077-0.972988I$ $a=\ \ 1.158990+0.636061I$ $b=-1.026780+0.947011I$	$-2.97543-5.01417I$	0
$u=\ \ 1.000520+0.384416I$ $a=\ \ 0.84725+1.13480I$ $b=\ \ 0.11867+1.47304I$	$-7.85810+4.18783I$	0
$u=\ \ 1.000520-0.384416I$ $a=\ \ 0.84725-1.13480I$ $b=\ \ 0.11867-1.47304I$	$-7.85810-4.18783I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.633669+0.876521I$ $a=\ \ 0.299556-0.921499I$ $b=-1.00999-1.36150I$	$1.75567+4.34220I$	0
$u=-0.633669-0.876521I$ $a=\ \ 0.299556+0.921499I$ $b=-1.00999+1.36150I$	$1.75567-4.34220I$	0
$u=-0.708842+0.572621I$ $a=\ \ 1.30572-0.88155I$ $b=-0.339536-0.635963I$	$-10.40510+0.69580I$	0
$u=-0.708842-0.572621I$ $a=\ \ 1.30572+0.88155I$ $b=-0.339536+0.635963I$	$-10.40510-0.69580I$	0
$u=\ \ 0.610838+0.902898I$ $a=\ \ 0.715158+0.400766I$ $b=\ \ 0.03549+1.68791I$	$-0.92355-1.16423I$	0
$u=\ \ 0.610838-0.902898I$ $a=\ \ 0.715158-0.400766I$ $b=\ \ 0.03549-1.68791I$	$-0.92355+1.16423I$	0
$u=\ \ 0.560258+0.696446I$ $a=-0.570660-0.624073I$ $b=\ \ 1.002330-0.488793I$	$-0.96818-1.42189I$	0
$u=\ \ 0.560258-0.696446I$ $a=-0.570660+0.624073I$ $b=\ \ 1.002330+0.488793I$	$-0.96818+1.42189I$	0
$u=-0.303732+1.066140I$ $a=-0.733376-0.446451I$ $b=-0.088832+0.426032I$	$2.36848-0.79913I$	0
$u=-0.303732-1.066140I$ $a=-0.733376+0.446451I$ $b=-0.088832-0.426032I$	$2.36848+0.79913I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.266885 + 1.078750I$ $a = -0.276052 + 0.400419I$ $b = 0.076490 + 0.488818I$	$1.10377 - 2.05634I$	0
$u = 0.266885 - 1.078750I$ $a = -0.276052 - 0.400419I$ $b = 0.076490 - 0.488818I$	$1.10377 + 2.05634I$	0
$u = -0.456686 + 0.759218I$ $a = -0.931926 + 1.023090I$ $b = -0.14489 + 1.45922I$	$-3.62940 - 1.30889I$	0
$u = -0.456686 - 0.759218I$ $a = -0.931926 - 1.023090I$ $b = -0.14489 - 1.45922I$	$-3.62940 + 1.30889I$	0
$u = 0.125732 + 1.107930I$ $a = 0.837788 + 0.386447I$ $b = -1.47232 + 0.33107I$	$-1.85603 + 5.07461I$	0
$u = 0.125732 - 1.107930I$ $a = 0.837788 - 0.386447I$ $b = -1.47232 - 0.33107I$	$-1.85603 - 5.07461I$	0
$u = 0.494450 + 0.726951I$ $a = -0.85345 - 1.22710I$ $b = 1.39694 - 1.24451I$	$-1.60214 - 3.42664I$	0
$u = 0.494450 - 0.726951I$ $a = -0.85345 + 1.22710I$ $b = 1.39694 + 1.24451I$	$-1.60214 + 3.42664I$	0
$u = 0.127020 + 1.114490I$ $a = 0.455851 - 0.633263I$ $b = 1.097710 + 0.273582I$	$1.16957 + 1.11750I$	0
$u = 0.127020 - 1.114490I$ $a = 0.455851 + 0.633263I$ $b = 1.097710 - 0.273582I$	$1.16957 - 1.11750I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.168145 + 1.127140I$ $a = -0.158159 - 0.844049I$ $b = -0.125944 - 0.188979I$	$3.53079 - 2.66328I$	0
$u = 0.168145 - 1.127140I$ $a = -0.158159 + 0.844049I$ $b = -0.125944 + 0.188979I$	$3.53079 + 2.66328I$	0
$u = 0.700144 + 0.900884I$ $a = 1.145280 - 0.297858I$ $b = 0.146788 + 0.452565I$	$-3.29013 + 0.66050I$	0
$u = 0.700144 - 0.900884I$ $a = 1.145280 + 0.297858I$ $b = 0.146788 - 0.452565I$	$-3.29013 - 0.66050I$	0
$u = -0.390874 + 1.081960I$ $a = 0.750270 - 0.412185I$ $b = 0.96387 - 1.56771I$	$-6.93969 + 2.57610I$	0
$u = -0.390874 - 1.081960I$ $a = 0.750270 + 0.412185I$ $b = 0.96387 + 1.56771I$	$-6.93969 - 2.57610I$	0
$u = 0.482016 + 1.049150I$ $a = 0.858899 + 0.746632I$ $b = -1.51305 + 1.73571I$	$0.24985 - 7.82066I$	0
$u = 0.482016 - 1.049150I$ $a = 0.858899 - 0.746632I$ $b = -1.51305 - 1.73571I$	$0.24985 + 7.82066I$	0
$u = -1.131750 + 0.241574I$ $a = 0.100307 - 1.130640I$ $b = -0.678773 - 1.219620I$	$-10.25730 + 3.14256I$	0
$u = -1.131750 - 0.241574I$ $a = 0.100307 + 1.130640I$ $b = -0.678773 + 1.219620I$	$-10.25730 - 3.14256I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.214027+0.813486I$ $a=\ \ 1.10150-1.09864I$ $b=-0.814823-1.152660I$	$1.16885+3.08474I$	0
$u=-0.214027-0.813486I$ $a=\ \ 1.10150+1.09864I$ $b=-0.814823+1.152660I$	$1.16885-3.08474I$	0
$u=-0.649790+0.510668I$ $a=\ \ 0.773497+0.135585I$ $b=-0.186296+0.931616I$	$-7.21083-0.39117I$	0
$u=-0.649790-0.510668I$ $a=\ \ 0.773497-0.135585I$ $b=-0.186296-0.931616I$	$-7.21083+0.39117I$	0
$u=-0.579659+1.036620I$ $a=\ \ 0.742083-1.006530I$ $b=-1.06629-1.75122I$	$0.33040+7.23718I$	0
$u=-0.579659-1.036620I$ $a=\ \ 0.742083+1.006530I$ $b=-1.06629+1.75122I$	$0.33040-7.23718I$	0
$u=-0.608949+1.025090I$ $a=\ \ 0.555994+0.603439I$ $b=-0.091363+0.327585I$	$-5.72956+5.36982I$	0
$u=-0.608949-1.025090I$ $a=\ \ 0.555994-0.603439I$ $b=-0.091363-0.327585I$	$-5.72956-5.36982I$	0
$u=-0.436203+1.112580I$ $a=-0.541794+0.639987I$ $b=\ \ 1.04481+1.09676I$	$2.76565-0.81161I$	0
$u=-0.436203-1.112580I$ $a=-0.541794-0.639987I$ $b=\ \ 1.04481-1.09676I$	$2.76565+0.81161I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.613093+0.516769I$ $a=-1.17848+0.78233I$ $b=\ 0.04086+1.47264I$	$-1.18560-2.48718I$	0
$u=-0.613093-0.516769I$ $a=-1.17848-0.78233I$ $b=\ 0.04086-1.47264I$	$-1.18560+2.48718I$	0
$u=\ 0.575581+1.054390I$ $a=-0.750827+0.918826I$ $b=-0.207997+0.084971I$	$-4.32792-12.04850I$	0
$u=\ 0.575581-1.054390I$ $a=-0.750827-0.918826I$ $b=-0.207997-0.084971I$	$-4.32792+12.04850I$	0
$u=\ 0.814552+0.918703I$ $a=\ 0.010307-1.024020I$ $b=\ 0.74676-1.67595I$	$-3.37246-6.44630I$	0
$u=\ 0.814552-0.918703I$ $a=\ 0.010307+1.024020I$ $b=\ 0.74676+1.67595I$	$-3.37246+6.44630I$	0
$u=\ 0.573243+0.511294I$ $a=-1.154820+0.608881I$ $b=-0.199791+1.255340I$	$-5.97031+7.35454I$	0
$u=\ 0.573243-0.511294I$ $a=-1.154820-0.608881I$ $b=-0.199791-1.255340I$	$-5.97031-7.35454I$	0
$u=\ 0.448637+1.149920I$ $a=-0.735635-0.876913I$ $b=\ 0.75668-1.20545I$	$1.30780-6.55447I$	0
$u=\ 0.448637-1.149920I$ $a=-0.735635+0.876913I$ $b=\ 0.75668+1.20545I$	$1.30780+6.55447I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.505675 + 1.126910I$ $a = 0.854993 + 0.881546I$ $b = 0.07486 + 1.46044I$	$-9.64904 + 1.20544I$	0
$u = 0.505675 - 1.126910I$ $a = 0.854993 - 0.881546I$ $b = 0.07486 - 1.46044I$	$-9.64904 - 1.20544I$	0
$u = -0.625956 + 1.065260I$ $a = -0.464025 + 0.929483I$ $b = 0.04685 + 1.50346I$	$-8.88424 + 4.46607I$	0
$u = -0.625956 - 1.065260I$ $a = -0.464025 - 0.929483I$ $b = 0.04685 - 1.50346I$	$-8.88424 - 4.46607I$	0
$u = 0.415061 + 1.164620I$ $a = -0.808416 + 0.297906I$ $b = 0.578523 - 0.123155I$	$0.541665 + 0.674438I$	0
$u = 0.415061 - 1.164620I$ $a = -0.808416 - 0.297906I$ $b = 0.578523 + 0.123155I$	$0.541665 - 0.674438I$	0
$u = -0.391320 + 1.176750I$ $a = 0.419634 + 0.768388I$ $b = 0.281154 + 0.101537I$	$3.12719 + 8.75276I$	0
$u = -0.391320 - 1.176750I$ $a = 0.419634 - 0.768388I$ $b = 0.281154 - 0.101537I$	$3.12719 - 8.75276I$	0
$u = 0.529117 + 0.515088I$ $a = 0.17738 + 1.41004I$ $b = 0.07309 + 1.65251I$	$-1.80834 - 4.97274I$	0
$u = 0.529117 - 0.515088I$ $a = 0.17738 - 1.41004I$ $b = 0.07309 - 1.65251I$	$-1.80834 + 4.97274I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.552350 + 1.142960I$ $a = -0.842810 - 0.662161I$ $b = -0.16534 - 1.82352I$	$-10.03460 - 9.32684I$	0
$u = 0.552350 - 1.142960I$ $a = -0.842810 + 0.662161I$ $b = -0.16534 + 1.82352I$	$-10.03460 + 9.32684I$	0
$u = -0.249519 + 0.685647I$ $a = -1.81767 + 0.54432I$ $b = 1.85314 + 0.14047I$	$-8.55206 + 0.30724I$	0
$u = -0.249519 - 0.685647I$ $a = -1.81767 - 0.54432I$ $b = 1.85314 - 0.14047I$	$-8.55206 - 0.30724I$	0
$u = -0.544172 + 1.165270I$ $a = -0.373268 - 0.595968I$ $b = 0.341746 - 0.006999I$	$-3.71802 + 3.39018I$	0
$u = -0.544172 - 1.165270I$ $a = -0.373268 + 0.595968I$ $b = 0.341746 + 0.006999I$	$-3.71802 - 3.39018I$	0
$u = -1.295510 + 0.079139I$ $a = -0.050953 + 0.456006I$ $b = -0.18642 + 2.25352I$	$-7.70149 - 1.28594I$	0
$u = -1.295510 - 0.079139I$ $a = -0.050953 - 0.456006I$ $b = -0.18642 - 2.25352I$	$-7.70149 + 1.28594I$	0
$u = 0.644292 + 0.276965I$ $a = -0.625586 - 0.286812I$ $b = 0.0650896 - 0.0924493I$	$-1.13811 - 1.22929I$	0
$u = 0.644292 - 0.276965I$ $a = -0.625586 + 0.286812I$ $b = 0.0650896 + 0.0924493I$	$-1.13811 + 1.22929I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.589086 + 1.163640I$ $a = 0.679726 + 0.674196I$ $b = -0.94054 + 1.88497I$	$-1.89596 - 5.69212I$	0
$u = 0.589086 - 1.163640I$ $a = 0.679726 - 0.674196I$ $b = -0.94054 - 1.88497I$	$-1.89596 + 5.69212I$	0
$u = 0.416142 + 0.544802I$ $a = -0.526173 - 0.598536I$ $b = 0.880180 + 0.038644I$	$-0.94869 - 1.38584I$	$0. + 4.67960I$
$u = 0.416142 - 0.544802I$ $a = -0.526173 + 0.598536I$ $b = 0.880180 - 0.038644I$	$-0.94869 + 1.38584I$	$0. - 4.67960I$
$u = 0.564918 + 0.383332I$ $a = 1.45545 + 1.93888I$ $b = -0.708421 + 1.011680I$	$-12.34290 + 4.70339I$	$-8.84051 + 0.I$
$u = 0.564918 - 0.383332I$ $a = 1.45545 - 1.93888I$ $b = -0.708421 - 1.011680I$	$-12.34290 - 4.70339I$	$-8.84051 + 0.I$
$u = 1.279420 + 0.322188I$ $a = 0.265884 + 0.709923I$ $b = 0.05481 + 1.79871I$	$-4.14898 + 0.36457I$	0
$u = 1.279420 - 0.322188I$ $a = 0.265884 - 0.709923I$ $b = 0.05481 - 1.79871I$	$-4.14898 - 0.36457I$	0
$u = -0.679447 + 0.013049I$ $a = 0.864948 - 0.181389I$ $b = 0.387957 - 0.800762I$	$-0.31375 + 4.79943I$	$1.02873 - 5.75401I$
$u = -0.679447 - 0.013049I$ $a = 0.864948 + 0.181389I$ $b = 0.387957 + 0.800762I$	$-0.31375 - 4.79943I$	$1.02873 + 5.75401I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.343291 + 0.582586I$ $a = -1.136990 - 0.510742I$ $b = -0.05655 - 2.15459I$	$-1.38479 + 4.08308I$	$0. - 2.31629I$
$u = 0.343291 - 0.582586I$ $a = -1.136990 + 0.510742I$ $b = -0.05655 + 2.15459I$	$-1.38479 - 4.08308I$	$0. + 2.31629I$
$u = 0.724269 + 1.110850I$ $a = 0.357258 + 0.703821I$ $b = -0.60736 + 1.54911I$	$0.27215 - 4.05186I$	0
$u = 0.724269 - 1.110850I$ $a = 0.357258 - 0.703821I$ $b = -0.60736 - 1.54911I$	$0.27215 + 4.05186I$	0
$u = -0.645742 + 1.189570I$ $a = -0.644003 + 0.838531I$ $b = 1.15957 + 1.85202I$	$-0.4180 + 14.6536I$	0
$u = -0.645742 - 1.189570I$ $a = -0.644003 - 0.838531I$ $b = 1.15957 - 1.85202I$	$-0.4180 - 14.6536I$	0
$u = 0.216745 + 1.340300I$ $a = -0.114024 + 0.270673I$ $b = -0.450190 + 0.108923I$	$3.89757 - 4.36674I$	0
$u = 0.216745 - 1.340300I$ $a = -0.114024 - 0.270673I$ $b = -0.450190 - 0.108923I$	$3.89757 + 4.36674I$	0
$u = 0.679467 + 1.184370I$ $a = -0.685854 - 1.021870I$ $b = 0.74889 - 1.82687I$	$-5.42868 - 10.24140I$	0
$u = 0.679467 - 1.184370I$ $a = -0.685854 + 1.021870I$ $b = 0.74889 + 1.82687I$	$-5.42868 + 10.24140I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.279570 + 0.508697I$ $a = -0.655421 - 0.757776I$ $b = 0.00347 - 1.65050I$	$-10.4575 + 12.0914I$	0
$u = 1.279570 - 0.508697I$ $a = -0.655421 + 0.757776I$ $b = 0.00347 + 1.65050I$	$-10.4575 - 12.0914I$	0
$u = 0.706563 + 1.209930I$ $a = -0.648502 - 0.723443I$ $b = 1.15299 - 1.47961I$	$-1.31805 - 7.01165I$	0
$u = 0.706563 - 1.209930I$ $a = -0.648502 + 0.723443I$ $b = 1.15299 + 1.47961I$	$-1.31805 + 7.01165I$	0
$u = 0.326041 + 0.497146I$ $a = -2.80161 - 1.47093I$ $b = 0.374915 - 0.577320I$	$-11.86600 - 5.10117I$	$-3.31976 + 13.71604I$
$u = 0.326041 - 0.497146I$ $a = -2.80161 + 1.47093I$ $b = 0.374915 + 0.577320I$	$-11.86600 + 5.10117I$	$-3.31976 - 13.71604I$
$u = -0.80836 + 1.16532I$ $a = -0.428291 + 0.441966I$ $b = -0.12334 + 1.63999I$	$-7.67134 + 3.64800I$	0
$u = -0.80836 - 1.16532I$ $a = -0.428291 - 0.441966I$ $b = -0.12334 - 1.63999I$	$-7.67134 - 3.64800I$	0
$u = -1.27764 + 0.63566I$ $a = 0.600340 - 0.644348I$ $b = -0.35571 - 1.53116I$	$-11.12240 - 3.61652I$	0
$u = -1.27764 - 0.63566I$ $a = 0.600340 + 0.644348I$ $b = -0.35571 + 1.53116I$	$-11.12240 + 3.61652I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.60116+1.35195I$ $a=\ \ 0.663090-0.813046I$ $b=-0.72253-1.22270I$	$-5.60159+9.06894I$	0
$u=-0.60116-1.35195I$ $a=\ \ 0.663090+0.813046I$ $b=-0.72253+1.22270I$	$-5.60159-9.06894I$	0
$u=-0.81198+1.24526I$ $a=-0.496488+0.794285I$ $b=\ \ 0.77989+1.88384I$	$-8.9761+11.0061I$	0
$u=-0.81198-1.24526I$ $a=-0.496488-0.794285I$ $b=\ \ 0.77989-1.88384I$	$-8.9761-11.0061I$	0
$u=-0.00068+1.48664I$ $a=\ \ 0.398547+0.239482I$ $b=-0.445922+0.044881I$	$3.77813-4.67524I$	0
$u=-0.00068-1.48664I$ $a=\ \ 0.398547-0.239482I$ $b=-0.445922-0.044881I$	$3.77813+4.67524I$	0
$u=\ \ 0.79017+1.26045I$ $a=\ \ 0.539243+0.899260I$ $b=-0.96322+1.86450I$	$-7.9951-19.3312I$	0
$u=\ \ 0.79017-1.26045I$ $a=\ \ 0.539243-0.899260I$ $b=-0.96322-1.86450I$	$-7.9951+19.3312I$	0
$u=\ \ 0.15580+1.48534I$ $a=\ \ 0.648674-0.013151I$ $b=\ \ 0.140672+0.486657I$	$-1.344860+0.071059I$	0
$u=\ \ 0.15580-1.48534I$ $a=\ \ 0.648674+0.013151I$ $b=\ \ 0.140672-0.486657I$	$-1.344860-0.071059I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.259274+0.426424I$ $a=-1.47486+0.23951I$ $b=\ \ 0.93919-1.44304I$	$-6.46196+0.59813I$	$-2.28013+2.06602I$
$u=-0.259274-0.426424I$ $a=-1.47486-0.23951I$ $b=\ \ 0.93919+1.44304I$	$-6.46196-0.59813I$	$-2.28013-2.06602I$
$u=\ \ 0.378100+0.315438I$ $a=\ \ 0.061691+0.566245I$ $b=-1.44940-1.89731I$	$-5.55648-7.76279I$	$-8.80485+0.13382I$
$u=\ \ 0.378100-0.315438I$ $a=\ \ 0.061691-0.566245I$ $b=-1.44940+1.89731I$	$-5.55648+7.76279I$	$-8.80485-0.13382I$
$u=\ \ 0.460230+0.031925I$ $a=\ \ 0.68579-2.15652I$ $b=\ \ 0.662368-0.658317I$	$-1.89889-2.91214I$	$-2.97212+3.96953I$
$u=\ \ 0.460230-0.031925I$ $a=\ \ 0.68579+2.15652I$ $b=\ \ 0.662368+0.658317I$	$-1.89889+2.91214I$	$-2.97212-3.96953I$
$u=-0.294915+0.277240I$ $a=-1.249540-0.321400I$ $b=-0.336044+0.469231I$	$1.112250-0.672938I$	$6.55539+1.55226I$
$u=-0.294915-0.277240I$ $a=-1.249540+0.321400I$ $b=-0.336044-0.469231I$	$1.112250+0.672938I$	$6.55539-1.55226I$
$u=-1.54620+0.49174I$ $a=-0.377594+0.642257I$ $b=\ \ 0.07544+1.72310I$	$-10.29290-0.46791I$	0
$u=-1.54620-0.49174I$ $a=-0.377594-0.642257I$ $b=\ \ 0.07544-1.72310I$	$-10.29290+0.46791I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.89165+1.36360I$ $a=\ \ 0.481026-0.723766I$ $b=-1.06851-1.68449I$	$-7.39010+8.78873I$	0
$u=-0.89165-1.36360I$ $a=\ \ 0.481026+0.723766I$ $b=-1.06851+1.68449I$	$-7.39010-8.78873I$	0
$u=-0.07002+1.81798I$ $a=-0.515105+0.073071I$ $b=\ \ 0.412978+0.054824I$	$-1.39947+6.49457I$	0
$u=-0.07002-1.81798I$ $a=-0.515105-0.073071I$ $b=\ \ 0.412978-0.054824I$	$-1.39947-6.49457I$	0

II.

$\boldsymbol{I_2^u = \langle 2.36\times 10^{30}u^{39}+1.06\times 10^{30}u^{38}+\cdots+2.44\times 10^{29}b-7.09\times 10^{30},\ -7.27\times 10^{30}u^{39}-1.24\times 10^{31}u^{38}+\cdots+2.44\times 10^{29}a+2.35\times 10^{30},\ u^{40}+2u^{39}+\cdots+2u+1\rangle}$

(i) Arc colorings

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

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

$$a_3 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$

$$a_{11} = \begin{pmatrix} 29.7463u^{39} + 50.6475u^{38} + \cdots + 65.2894u - 9.59554 \\ -9.63502u^{39} - 4.33277u^{38} + \cdots + 7.83294u + 29.0222 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -6.24409u^{39} - 19.3595u^{38} + \cdots + 35.8114u - 21.5391 \\ -6.23997u^{39} - 2.63691u^{38} + \cdots + 0.390048u + 18.6882 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.00411436u^{39} - 16.7226u^{38} + \cdots + 35.4213u - 40.2272 \\ -6.23997u^{39} - 2.63691u^{38} + \cdots + 0.390048u + 18.6882 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 29.0169u^{39} + 84.8647u^{38} + \cdots + 187.391u + 59.9064 \\ -17.1156u^{39} - 44.1846u^{38} + \cdots - 71.6652u - 38.0551 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -72.8815u^{39} - 101.235u^{38} + \cdots - 85.0283u + 64.7378 \\ 31.8632u^{39} + 60.5309u^{38} + \cdots + 81.9156u + 25.0931 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 36.4409u^{39} + 55.0238u^{38} + \cdots + 61.2585u - 27.0313 \\ -2.59464u^{39} + 4.41572u^{38} + \cdots + 15.1332u + 20.5992 \end{pmatrix}$$

$$a_5 = \begin{pmatrix} 7.52128u^{39} + 43.4975u^{38} + \cdots + 15.2571u + 72.4110 \\ -5.11574u^{39} - 24.7981u^{38} + \cdots - 55.2528u - 40.9312 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -10.4023u^{39} - 4.14132u^{38} + \cdots + 31.3326u + 66.7682 \\ 11.3636u^{39} + 21.2245u^{38} + \cdots + 27.9945u + 10.6085 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -56.6554u^{39} - 56.7530u^{38} + \cdots - 43.5485u + 78.1331$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{40} - 6u^{39} + \cdots + 2u + 1$
c_2	$u^{40} + 2u^{39} + \cdots + 2u + 1$
c_3	$u^{40} + 7u^{38} + \cdots + 22u^2 + 1$
c_4	$u^{40} + 15u^{38} + \cdots + u + 1$
c_5	$u^{40} + 26u^{38} + \cdots - 7u + 3$
c_6	$u^{40} - 2u^{39} + \cdots - 2u + 1$
c_7	$u^{40} + 12u^{39} + \cdots + 6u + 1$
c_8	$u^{40} - 2u^{39} + \cdots - 8u + 33$
c_9	$u^{40} - 4u^{39} + \cdots - 2u + 1$
c_{10}	$u^{40} - 12u^{39} + \cdots - 6u + 1$
c_{11}, c_{12}	$u^{40} + 26u^{38} + \cdots + 7u + 3$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{40} + 8y^{39} + \cdots + 10y + 1$
c_2, c_6	$y^{40} + 20y^{39} + \cdots + 36y + 1$
c_3	$y^{40} + 14y^{39} + \cdots + 44y + 1$
c_4	$y^{40} + 30y^{39} + \cdots + 25y + 1$
c_5, c_{11}, c_{12}	$y^{40} + 52y^{39} + \cdots + 59y + 9$
c_7, c_{10}	$y^{40} + 22y^{39} + \cdots + 32y + 1$
c_8	$y^{40} + 16y^{39} + \cdots + 1256y + 1089$
c_9	$y^{40} + 8y^{39} + \cdots + 20y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.444550+0.914413I$ $a=-0.96905-1.21576I$ $b=-0.041558-0.359931I$	$-2.29584+1.76861I$	$-3.60737-6.50436I$
$u=-0.444550-0.914413I$ $a=-0.96905+1.21576I$ $b=-0.041558+0.359931I$	$-2.29584-1.76861I$	$-3.60737+6.50436I$
$u=\ 0.187273+0.932085I$ $a=\ 0.430639-1.322430I$ $b=\ 0.317986-0.324879I$	$3.81470-0.78259I$	$-4.44356+8.12416I$
$u=\ 0.187273-0.932085I$ $a=\ 0.430639+1.322430I$ $b=\ 0.317986+0.324879I$	$3.81470+0.78259I$	$-4.44356-8.12416I$
$u=\ 0.103709+1.052920I$ $a=\ 0.162735-0.717732I$ $b=-1.002300-0.109719I$	$0.606419-0.422920I$	$5.92451-2.14116I$
$u=\ 0.103709-1.052920I$ $a=\ 0.162735+0.717732I$ $b=-1.002300+0.109719I$	$0.606419+0.422920I$	$5.92451+2.14116I$
$u=-0.157513+1.141160I$ $a=-0.625253-0.411431I$ $b=-0.882706+0.389542I$	$0.72327-1.31147I$	$-2.43030+8.28751I$
$u=-0.157513-1.141160I$ $a=-0.625253+0.411431I$ $b=-0.882706-0.389542I$	$0.72327+1.31147I$	$-2.43030-8.28751I$
$u=-0.459495+1.059880I$ $a=-0.624357+0.471625I$ $b=-0.79266+1.50891I$	$-6.49496+2.48742I$	$4.09239-0.50324I$
$u=-0.459495-1.059880I$ $a=-0.624357-0.471625I$ $b=-0.79266-1.50891I$	$-6.49496-2.48742I$	$4.09239+0.50324I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.327736+0.747107I$ $a=\ 0.98982-1.25683I$ $b=-1.34302-0.87753I$	$-0.91572+3.34905I$	$6.49485-6.47835I$
$u=-0.327736-0.747107I$ $a=\ 0.98982+1.25683I$ $b=-1.34302+0.87753I$	$-0.91572-3.34905I$	$6.49485+6.47835I$
$u=-1.186900+0.062909I$ $a=-0.097888+0.552757I$ $b=-0.09909+2.48425I$	$-7.89709+0.96908I$	$-11.70952+7.02494I$
$u=-1.186900-0.062909I$ $a=-0.097888-0.552757I$ $b=-0.09909-2.48425I$	$-7.89709-0.96908I$	$-11.70952-7.02494I$
$u=\ 0.722017+0.952058I$ $a=-0.344851-0.919898I$ $b=\ 0.64926-1.60763I$	$0.15202-5.01084I$	$2.00000+7.80911I$
$u=\ 0.722017-0.952058I$ $a=-0.344851+0.919898I$ $b=\ 0.64926+1.60763I$	$0.15202+5.01084I$	$2.00000-7.80911I$
$u=\ 0.443692+1.109600I$ $a=\ 0.766187-0.292369I$ $b=-0.430106+0.246966I$	$0.970237-0.012243I$	$3.33159+1.87657I$
$u=\ 0.443692-1.109600I$ $a=\ 0.766187+0.292369I$ $b=-0.430106-0.246966I$	$0.970237+0.012243I$	$3.33159-1.87657I$
$u=\ 0.571025+1.110320I$ $a=-0.766465-0.758843I$ $b=\ 1.08906-1.59059I$	$-0.71028-6.28155I$	$0.+6.09192I$
$u=\ 0.571025-1.110320I$ $a=-0.766465+0.758843I$ $b=\ 1.08906+1.59059I$	$-0.71028+6.28155I$	$0.-6.09192I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.296920+0.169850I$ $a=-0.281347+0.913459I$ $b=-0.126023+1.368710I$	$-10.33980-2.19096I$	0
$u=-1.296920-0.169850I$ $a=-0.281347-0.913459I$ $b=-0.126023-1.368710I$	$-10.33980+2.19096I$	0
$u=1.302850+0.214110I$ $a=0.230499+0.678527I$ $b=-0.02376+1.81092I$	$-3.88043+0.67833I$	$0.-11.89725I$
$u=1.302850-0.214110I$ $a=0.230499-0.678527I$ $b=-0.02376-1.81092I$	$-3.88043-0.67833I$	$0.+11.89725I$
$u=-0.200667+0.644596I$ $a=1.98028-0.41743I$ $b=-1.72532+0.25249I$	$-8.54079+0.70829I$	$-5.06182-12.00760I$
$u=-0.200667-0.644596I$ $a=1.98028+0.41743I$ $b=-1.72532-0.25249I$	$-8.54079-0.70829I$	$-5.06182+12.00760I$
$u=0.412690+0.533656I$ $a=0.035749+0.927287I$ $b=1.01970+2.36762I$	$-5.34256-8.10456I$	$1.6796+16.4619I$
$u=0.412690-0.533656I$ $a=0.035749-0.927287I$ $b=1.01970-2.36762I$	$-5.34256+8.10456I$	$1.6796-16.4619I$
$u=0.233922+0.618882I$ $a=1.60397+0.80050I$ $b=-0.36236+1.48237I$	$-3.18342+2.49347I$	$-1.92849-5.48708I$
$u=0.233922-0.618882I$ $a=1.60397-0.80050I$ $b=-0.36236-1.48237I$	$-3.18342-2.49347I$	$-1.92849+5.48708I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.218148+0.583018I$ $a=-0.91360+1.11345I$ $b=\ \ 0.21487+2.03800I$	$-0.98005+4.91747I$	$5.03116-8.96155I$
$u=-0.218148-0.583018I$ $a=-0.91360-1.11345I$ $b=\ \ 0.21487-2.03800I$	$-0.98005-4.91747I$	$5.03116+8.96155I$
$u=\ \ 0.15771+1.47078I$ $a=\ \ 0.346555+0.069621I$ $b=-0.180229-0.167427I$	$3.41178-4.33900I$	0
$u=\ \ 0.15771-1.47078I$ $a=\ \ 0.346555-0.069621I$ $b=-0.180229+0.167427I$	$3.41178+4.33900I$	0
$u=-0.69434+1.33473I$ $a=\ \ 0.638877-0.782571I$ $b=-0.81248-1.50925I$	$-6.41075+9.08001I$	0
$u=-0.69434-1.33473I$ $a=\ \ 0.638877+0.782571I$ $b=-0.81248+1.50925I$	$-6.41075-9.08001I$	0
$u=-0.09140+1.58151I$ $a=-0.228927+0.057448I$ $b=\ \ 1.188430-0.153311I$	$-0.20447+6.13649I$	0
$u=-0.09140-1.58151I$ $a=-0.228927-0.057448I$ $b=\ \ 1.188430+0.153311I$	$-0.20447-6.13649I$	0
$u=-0.057220+0.367746I$ $a=-4.83357+0.87437I$ $b=\ \ 0.342300+0.508522I$	$-11.69990-4.70526I$	$5.02386-2.74606I$
$u=-0.057220-0.367746I$ $a=-4.83357-0.87437I$ $b=\ \ 0.342300-0.508522I$	$-11.69990+4.70526I$	$5.02386+2.74606I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{40}-6u^{39}+\cdots+2u+1)(u^{144}-5u^{143}+\cdots-106u+17)$
c_2	$(u^{40}+2u^{39}+\cdots+2u+1)(u^{144}-u^{143}+\cdots+5896u+989)$
c_3	$(u^{40}+7u^{38}+\cdots+22u^2+1)(u^{144}+u^{143}+\cdots-431616u+85504)$
c_4	$(u^{40}+15u^{38}+\cdots+u+1)(u^{144}-u^{143}+\cdots+545u+307)$
c_5	$(u^{40}+26u^{38}+\cdots-7u+3)(u^{144}-u^{143}+\cdots+2435u+193)$
c_6	$(u^{40}-2u^{39}+\cdots-2u+1)(u^{144}-u^{143}+\cdots+5896u+989)$
c_7	$(u^{40}+12u^{39}+\cdots+6u+1)(u^{144}-7u^{143}+\cdots+126358u+11033)$
c_8	$(u^{40}-2u^{39}+\cdots-8u+33)(u^{144}+u^{143}+\cdots+222158u+28393)$
c_9	$(u^{40}-4u^{39}+\cdots-2u+1)(u^{144}-3u^{143}+\cdots-94488u+22681)$
c_{10}	$(u^{40}-12u^{39}+\cdots-6u+1)(u^{144}-7u^{143}+\cdots+126358u+11033)$
c_{11}, c_{12}	$(u^{40}+26u^{38}+\cdots+7u+3)(u^{144}-u^{143}+\cdots+2435u+193)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{40}+8y^{39}+\cdots+10y+1)(y^{144}+17y^{143}+\cdots+8926y+289)$
c_2, c_6	$(y^{40}+20y^{39}+\cdots+36y+1)$ $\cdot(y^{144}+65y^{143}+\cdots+23149068y+978121)$
c_3	$(y^{40}+14y^{39}+\cdots+44y+1)$ $\cdot(y^{144}-5y^{143}+\cdots-279517724672y+7310934016)$
c_4	$(y^{40}+30y^{39}+\cdots+25y+1)$ $\cdot(y^{144}+51y^{143}+\cdots+4212805y+94249)$
c_5, c_{11}, c_{12}	$(y^{40}+52y^{39}+\cdots+59y+9)$ $\cdot(y^{144}+161y^{143}+\cdots+3654383y+37249)$
c_7, c_{10}	$(y^{40}+22y^{39}+\cdots+32y+1)$ $\cdot(y^{144}+87y^{143}+\cdots+4474494936y+121727089)$
c_8	$(y^{40}+16y^{39}+\cdots+1256y+1089)$ $\cdot(y^{144}+25y^{143}+\cdots+51876294512y+806162449)$
c_9	$(y^{40}+8y^{39}+\cdots+20y+1)$ $\cdot(y^{144}+37y^{143}+\cdots+31337234260y+514427761)$