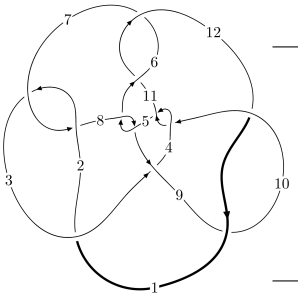
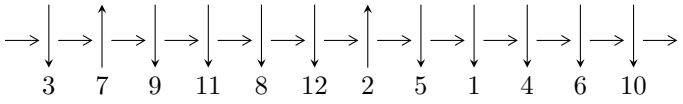
$12a_{0592}$ $(K12a_{0592})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 1.27555 \times 10^{759} u^{147} - 5.43746 \times 10^{758} u^{146} + \cdots + 6.00623 \times 10^{760} b - 3.19036 \times 10^{762}, \\ & 8.52310 \times 10^{761} u^{147} + 2.29088 \times 10^{761} u^{146} + \cdots + 5.65187 \times 10^{763} a + 8.68018 \times 10^{766}, \\ & u^{148} - u^{147} + \cdots - 53808u - 30112 \rangle \\ I_2^u = \langle & -9.48192 \times 10^{21} u^{39} - 6.04550 \times 10^{22} u^{38} + \cdots + 2.10677 \times 10^{21} b + 4.56968 \times 10^{23}, \\ & - 1.41896 \times 10^{23} u^{39} - 1.79678 \times 10^{23} u^{38} + \cdots + 4.21354 \times 10^{21} a + 1.49494 \times 10^{24}, \\ & u^{40} - 20u^{38} + \cdots + 14u + 4 \rangle \end{aligned}$$

* 2 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 188 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. $\boldsymbol{I_1^u = \langle 1.28 \times 10^{759} u^{147} - 5.44 \times 10^{758} u^{146} + \cdots + 6.01 \times 10^{760} b - 3.19 \times 10^{762},\ 8.52 \times 10^{761} u^{147} + 2.29 \times 10^{761} u^{146} + \cdots + 5.65 \times 10^{763} a + 8.68 \times 10^{766},\ u^{148} - u^{147} + \cdots - 53808u - 30112 \rangle}$

(i) Arc colorings

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

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

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

$$a_9 = \begin{pmatrix} -0.0150802u^{147} - 0.00405332u^{146} + \cdots - 3656.00u - 1535.81 \\ -0.0212371u^{147} + 0.00905302u^{146} + \cdots - 333.345u + 53.1175 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -0.0453474u^{147} + 0.00568426u^{146} + \cdots - 4034.83u - 1287.00 \\ 0.00445966u^{147} - 0.0147265u^{146} + \cdots + 300.481u - 171.603 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -0.0363173u^{147} + 0.00499971u^{146} + \cdots - 3989.34u - 1482.69 \\ -0.0212371u^{147} + 0.00905302u^{146} + \cdots - 333.345u + 53.1175 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -0.00892067u^{147} + 0.0248161u^{146} + \cdots + 378.690u + 566.031 \\ 0.00778258u^{147} - 0.00321811u^{146} + \cdots - 407.207u - 169.594 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} 0.0106950u^{147} + 0.00827467u^{146} + \cdots + 1227.05u + 759.853 \\ -0.00632593u^{147} - 0.00124789u^{146} + \cdots - 1576.14u - 566.286 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -0.0251779u^{147} - 0.000230073u^{146} + \cdots - 2451.98u - 1066.55 \\ 0.0217830u^{147} - 0.000817469u^{146} + \cdots + 2049.68u + 830.946 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.0131109u^{147} + 0.0460703u^{146} + \cdots + 1069.10u + 1438.34 \\ -0.00169074u^{147} - 0.00435045u^{146} + \cdots - 1421.28u - 586.173 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} 0.0127957u^{147} + 0.0131225u^{146} + \cdots + 1958.07u + 1128.43 \\ -0.00684151u^{147} + 0.000982730u^{146} + \cdots - 1282.27u - 406.943 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= 0.0629200u^{147} - 0.0215940u^{146} + \cdots + 2591.46u + 883.134$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{148} + 61u^{147} + \cdots - 482592u + 289$
c_2, c_7	$u^{148} + u^{147} + \cdots + 756u - 17$
c_3	$u^{148} + u^{147} + \cdots + 218802202u - 23765389$
c_4, c_{10}	$u^{148} - u^{147} + \cdots - 53808u - 30112$
c_5, c_8	$u^{148} - 3u^{147} + \cdots - 2u + 1$
c_6, c_{11}	$u^{148} + u^{147} + \cdots + 72727u - 63873$
c_9, c_{12}	$u^{148} - 3u^{147} + \cdots + 27474u - 19583$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{148} + 73y^{147} + \cdots - 238131873368y + 83521$
c_2, c_7	$y^{148} + 61y^{147} + \cdots - 482592y + 289$
c_3	$y^{148} + 33y^{147} + \cdots + 2075029942090772y + 564793714321321$
c_4, c_{10}	$y^{148} - 103y^{147} + \cdots - 18411894016y + 906732544$
c_5, c_8	$y^{148} + 77y^{147} + \cdots + 6y + 1$
c_6, c_{11}	$y^{148} - 93y^{147} + \cdots - 115187567377y + 4079760129$
c_9, c_{12}	$y^{148} + 83y^{147} + \cdots + 12878707260y + 383493889$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.214326 + 0.984152I$ $a = -0.413942 - 0.125164I$ $b = 0.125114 - 1.307210I$	$8.92003 + 0.75788I$	0
$u = 0.214326 - 0.984152I$ $a = -0.413942 + 0.125164I$ $b = 0.125114 + 1.307210I$	$8.92003 - 0.75788I$	0
$u = 0.875978 + 0.463305I$ $a = -1.37403 - 1.00103I$ $b = 0.418855 + 1.265100I$	$4.92923 + 3.61563I$	0
$u = 0.875978 - 0.463305I$ $a = -1.37403 + 1.00103I$ $b = 0.418855 - 1.265100I$	$4.92923 - 3.61563I$	0
$u = -0.728586 + 0.700156I$ $a = 1.53251 + 0.28888I$ $b = -0.726083 + 1.133350I$	$4.26806 + 2.29976I$	0
$u = -0.728586 - 0.700156I$ $a = 1.53251 - 0.28888I$ $b = -0.726083 - 1.133350I$	$4.26806 - 2.29976I$	0
$u = -0.951042 + 0.391347I$ $a = 1.42389 - 1.07644I$ $b = -0.599424 + 1.189260I$	$4.98091 + 2.21212I$	0
$u = -0.951042 - 0.391347I$ $a = 1.42389 + 1.07644I$ $b = -0.599424 - 1.189260I$	$4.98091 - 2.21212I$	0
$u = 0.616095 + 0.737967I$ $a = -0.599399 + 0.213597I$ $b = 0.605983 - 0.665926I$	$3.24880 - 1.43352I$	0
$u = 0.616095 - 0.737967I$ $a = -0.599399 - 0.213597I$ $b = 0.605983 + 0.665926I$	$3.24880 + 1.43352I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.249400+0.922126I$ $a=\ \ 0.234199-0.007156I$ $b=\ \ 0.486978+1.199110I$	$0.18577-7.33775I$	0
$u=-0.249400-0.922126I$ $a=\ \ 0.234199+0.007156I$ $b=\ \ 0.486978-1.199110I$	$0.18577+7.33775I$	0
$u=-0.896819+0.328504I$ $a=-1.262960+0.025626I$ $b=\ \ 0.060611-0.674689I$	$-0.692038+0.363451I$	0
$u=-0.896819-0.328504I$ $a=-1.262960-0.025626I$ $b=\ \ 0.060611+0.674689I$	$-0.692038-0.363451I$	0
$u=\ \ 0.666548+0.677478I$ $a=-0.666523+0.085489I$ $b=\ \ 0.433476-0.618221I$	$3.25690-1.41552I$	0
$u=\ \ 0.666548-0.677478I$ $a=-0.666523-0.085489I$ $b=\ \ 0.433476+0.618221I$	$3.25690+1.41552I$	0
$u=\ \ 1.037240+0.227779I$ $a=\ \ 1.50158-0.50954I$ $b=-1.46327+0.47624I$	$-4.23688+0.02542I$	0
$u=\ \ 1.037240-0.227779I$ $a=\ \ 1.50158+0.50954I$ $b=-1.46327-0.47624I$	$-4.23688-0.02542I$	0
$u=-0.662915+0.641650I$ $a=-0.072510-0.271082I$ $b=-0.299940-1.036200I$	$1.60102-1.05149I$	0
$u=-0.662915-0.641650I$ $a=-0.072510+0.271082I$ $b=-0.299940+1.036200I$	$1.60102+1.05149I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.888829 + 0.173429I$ $a = -1.99544 + 0.85848I$ $b = 0.493308 + 1.059540I$	$-3.06656 - 6.30605I$	0
$u = 0.888829 - 0.173429I$ $a = -1.99544 - 0.85848I$ $b = 0.493308 - 1.059540I$	$-3.06656 + 6.30605I$	0
$u = 0.511896 + 0.969843I$ $a = -0.157976 + 0.616360I$ $b = 0.392535 + 0.963915I$	$-2.61321 + 0.25611I$	0
$u = 0.511896 - 0.969843I$ $a = -0.157976 - 0.616360I$ $b = 0.392535 - 0.963915I$	$-2.61321 - 0.25611I$	0
$u = 1.091240 + 0.136632I$ $a = 1.61954 + 0.32904I$ $b = -0.717318 - 0.658374I$	$-3.94319 - 2.68174I$	0
$u = 1.091240 - 0.136632I$ $a = 1.61954 - 0.32904I$ $b = -0.717318 + 0.658374I$	$-3.94319 + 2.68174I$	0
$u = 0.895060 + 0.040483I$ $a = -1.21100 + 0.90504I$ $b = 0.368272 + 1.140510I$	$-3.32363 + 2.05649I$	0
$u = 0.895060 - 0.040483I$ $a = -1.21100 - 0.90504I$ $b = 0.368272 - 1.140510I$	$-3.32363 - 2.05649I$	0
$u = -1.056220 + 0.343146I$ $a = -1.37535 - 0.67389I$ $b = 1.39335 + 0.63287I$	$-5.29713 + 5.12679I$	0
$u = -1.056220 - 0.343146I$ $a = -1.37535 + 0.67389I$ $b = 1.39335 - 0.63287I$	$-5.29713 - 5.12679I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.825724 + 0.747298I$ $a = -1.62385 + 0.23078I$ $b = 0.824376 + 1.057590I$	$4.04498 - 7.25792I$	0
$u = 0.825724 - 0.747298I$ $a = -1.62385 - 0.23078I$ $b = 0.824376 - 1.057590I$	$4.04498 + 7.25792I$	0
$u = -0.937222 + 0.604861I$ $a = 1.51139 + 0.80258I$ $b = -0.602775 + 0.275875I$	$0.91085 + 8.01898I$	0
$u = -0.937222 - 0.604861I$ $a = 1.51139 - 0.80258I$ $b = -0.602775 - 0.275875I$	$0.91085 - 8.01898I$	0
$u = 0.843385 + 0.201634I$ $a = -0.120544 + 0.790548I$ $b = 0.09359 - 1.82610I$	$5.52470 - 6.41923I$	0
$u = 0.843385 - 0.201634I$ $a = -0.120544 - 0.790548I$ $b = 0.09359 + 1.82610I$	$5.52470 + 6.41923I$	0
$u = -0.123533 + 0.856619I$ $a = 0.612379 - 0.162562I$ $b = -0.231194 - 1.354280I$	$7.76303 - 6.83821I$	0
$u = -0.123533 - 0.856619I$ $a = 0.612379 + 0.162562I$ $b = -0.231194 + 1.354280I$	$7.76303 + 6.83821I$	0
$u = 0.667705 + 0.546943I$ $a = 0.885097 - 0.534374I$ $b = 0.343696 - 0.601604I$	$-3.48032 + 3.66211I$	0
$u = 0.667705 - 0.546943I$ $a = 0.885097 + 0.534374I$ $b = 0.343696 + 0.601604I$	$-3.48032 - 3.66211I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.137020+0.145280I$ $a=-1.199480-0.623228I$ $b=\ \ 0.289719-1.106420I$	$-3.22971+2.24180I$	0
$u=-1.137020-0.145280I$ $a=-1.199480+0.623228I$ $b=\ \ 0.289719+1.106420I$	$-3.22971-2.24180I$	0
$u=-0.826873+0.171169I$ $a=\ \ 0.540158+0.720506I$ $b=-0.30509-1.76458I$	$5.83530+0.18265I$	0
$u=-0.826873-0.171169I$ $a=\ \ 0.540158-0.720506I$ $b=-0.30509+1.76458I$	$5.83530-0.18265I$	0
$u=\ \ 0.714796+0.443811I$ $a=-1.72520+0.66537I$ $b=\ \ 0.174414-0.264431I$	$2.95438-3.17982I$	0
$u=\ \ 0.714796-0.443811I$ $a=-1.72520-0.66537I$ $b=\ \ 0.174414+0.264431I$	$2.95438+3.17982I$	0
$u=\ \ 0.814438+0.189957I$ $a=\ \ 2.49440-0.42645I$ $b=-1.234240+0.009765I$	$-3.36046-1.80092I$	0
$u=\ \ 0.814438-0.189957I$ $a=\ \ 2.49440+0.42645I$ $b=-1.234240-0.009765I$	$-3.36046+1.80092I$	0
$u=\ \ 0.804465+0.844735I$ $a=-0.170498+0.539610I$ $b=\ \ 0.581615-1.172870I$	$4.16225+1.37790I$	0
$u=\ \ 0.804465-0.844735I$ $a=-0.170498-0.539610I$ $b=\ \ 0.581615+1.172870I$	$4.16225-1.37790I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.077740+0.455945I$ $a=\ \ 1.87684-0.06520I$ $b=-0.525181+1.024050I$	$0.20875+5.40054I$	0
$u=-1.077740-0.455945I$ $a=\ \ 1.87684+0.06520I$ $b=-0.525181-1.024050I$	$0.20875-5.40054I$	0
$u=-0.863979+0.796330I$ $a=-0.046595+0.541979I$ $b=-0.455481-1.231400I$	$3.95808+3.32044I$	0
$u=-0.863979-0.796330I$ $a=-0.046595-0.541979I$ $b=-0.455481+1.231400I$	$3.95808-3.32044I$	0
$u=-0.009550+1.181060I$ $a=-0.006924+0.467320I$ $b=\ \ 0.404163+0.873428I$	$-2.67414+0.10161I$	0
$u=-0.009550-1.181060I$ $a=-0.006924-0.467320I$ $b=\ \ 0.404163-0.873428I$	$-2.67414-0.10161I$	0
$u=-0.426735+0.696337I$ $a=\ \ 0.648366+0.204756I$ $b=-0.806994-0.353529I$	$2.33256-3.28873I$	0
$u=-0.426735-0.696337I$ $a=\ \ 0.648366-0.204756I$ $b=-0.806994+0.353529I$	$2.33256+3.28873I$	0
$u=\ \ 0.971663+0.692788I$ $a=-1.62485+0.41674I$ $b=\ \ 0.745783+0.686738I$	$2.32462-4.03949I$	0
$u=\ \ 0.971663-0.692788I$ $a=-1.62485-0.41674I$ $b=\ \ 0.745783-0.686738I$	$2.32462+4.03949I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.712291+0.369817I$ $a=\ \ 2.33356+1.23617I$ $b=-0.099743-0.239624I$	$1.10383+8.13108I$	0
$u=-0.712291-0.369817I$ $a=\ \ 2.33356-1.23617I$ $b=-0.099743+0.239624I$	$1.10383-8.13108I$	0
$u=-0.794476+0.106943I$ $a=\ \ 1.72375+0.60210I$ $b=-0.505956+1.138630I$	$0.32935+2.06920I$	0
$u=-0.794476-0.106943I$ $a=\ \ 1.72375-0.60210I$ $b=-0.505956-1.138630I$	$0.32935-2.06920I$	0
$u=\ \ 1.163500+0.302367I$ $a=\ \ 1.227760+0.031436I$ $b=-0.473347-1.278390I$	$-1.19171-5.50814I$	0
$u=\ \ 1.163500-0.302367I$ $a=\ \ 1.227760-0.031436I$ $b=-0.473347+1.278390I$	$-1.19171+5.50814I$	0
$u=\ \ 0.267676+0.749235I$ $a=-0.637894+0.129383I$ $b=-0.325619+1.165970I$	$1.78491+2.49380I$	0
$u=\ \ 0.267676-0.749235I$ $a=-0.637894-0.129383I$ $b=-0.325619-1.165970I$	$1.78491-2.49380I$	0
$u=\ \ 1.223360+0.088706I$ $a=-0.564615-1.141070I$ $b=\ \ 0.507809+0.485334I$	$-4.81534+2.14628I$	0
$u=\ \ 1.223360-0.088706I$ $a=-0.564615+1.141070I$ $b=\ \ 0.507809-0.485334I$	$-4.81534-2.14628I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.22763$ $a = 1.26399$ $b = -1.14801$	-5.55891	0
$u = -1.159340 + 0.410415I$ $a = -1.256630 + 0.541922I$ $b = 0.329053 - 1.154260I$	$1.42778 + 1.54612I$	0
$u = -1.159340 - 0.410415I$ $a = -1.256630 - 0.541922I$ $b = 0.329053 + 1.154260I$	$1.42778 - 1.54612I$	0
$u = -0.051071 + 0.763432I$ $a = 0.107953 + 0.396029I$ $b = -0.081193 + 1.297080I$	$4.70452 + 2.64087I$	0
$u = -0.051071 - 0.763432I$ $a = 0.107953 - 0.396029I$ $b = -0.081193 - 1.297080I$	$4.70452 - 2.64087I$	0
$u = -1.253150 + 0.243833I$ $a = 0.820966 - 0.523948I$ $b = -0.743124 + 0.209233I$	$-2.39226 + 2.63611I$	0
$u = -1.253150 - 0.243833I$ $a = 0.820966 + 0.523948I$ $b = -0.743124 - 0.209233I$	$-2.39226 - 2.63611I$	0
$u = -0.648801 + 0.319269I$ $a = 0.76138 + 1.36805I$ $b = -0.320323 - 0.183103I$	$-1.48409 + 1.41052I$	0
$u = -0.648801 - 0.319269I$ $a = 0.76138 - 1.36805I$ $b = -0.320323 + 0.183103I$	$-1.48409 - 1.41052I$	0
$u = -1.273150 + 0.153104I$ $a = -1.90554 - 0.22647I$ $b = 0.529291 - 1.023470I$	$-2.37540 + 8.20990I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.273150-0.153104I$ $a=-1.90554+0.22647I$ $b=\ \ 0.529291+1.023470I$	$-2.37540-8.20990I$	0
$u=-0.704151+0.077832I$ $a=\ \ 1.77620+1.60667I$ $b=-0.245995-0.517858I$	$-1.43176+1.40849I$	0
$u=-0.704151-0.077832I$ $a=\ \ 1.77620-1.60667I$ $b=-0.245995+0.517858I$	$-1.43176-1.40849I$	0
$u=\ \ 1.237810+0.376131I$ $a=\ \ 1.39276+0.59417I$ $b=-0.461339-1.212050I$	$0.79281-6.70296I$	0
$u=\ \ 1.237810-0.376131I$ $a=\ \ 1.39276-0.59417I$ $b=-0.461339+1.212050I$	$0.79281+6.70296I$	0
$u=-1.241830+0.421803I$ $a=\ \ 1.292470+0.222253I$ $b=-1.249670-0.232251I$	$-0.90694+6.57296I$	0
$u=-1.241830-0.421803I$ $a=\ \ 1.292470-0.222253I$ $b=-1.249670+0.232251I$	$-0.90694-6.57296I$	0
$u=\ \ 1.298230+0.215686I$ $a=\ \ 1.77177+0.08749I$ $b=-0.583511-1.117650I$	$-1.41694-4.12322I$	0
$u=\ \ 1.298230-0.215686I$ $a=\ \ 1.77177-0.08749I$ $b=-0.583511+1.117650I$	$-1.41694+4.12322I$	0
$u=\ \ 1.209010+0.535306I$ $a=\ \ 1.41109+0.17868I$ $b=-0.72545-1.32288I$	$-1.13918-7.42902I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.209010 - 0.535306I$ $a = 1.41109 - 0.17868I$ $b = -0.72545 + 1.32288I$	$-1.13918 + 7.42902I$	0
$u = 1.255250 + 0.455390I$ $a = -1.304540 + 0.394555I$ $b = 1.286180 - 0.361410I$	$-2.43010 - 12.50910I$	0
$u = 1.255250 - 0.455390I$ $a = -1.304540 - 0.394555I$ $b = 1.286180 + 0.361410I$	$-2.43010 + 12.50910I$	0
$u = -0.616306 + 0.235557I$ $a = -2.85037 - 0.71023I$ $b = 1.201670 - 0.077763I$	$-3.66033 - 2.34896I$	$-8.00000 + 0.I$
$u = -0.616306 - 0.235557I$ $a = -2.85037 + 0.71023I$ $b = 1.201670 + 0.077763I$	$-3.66033 + 2.34896I$	$-8.00000 + 0.I$
$u = -1.320820 + 0.305987I$ $a = -0.970657 - 0.471871I$ $b = 0.994008 + 0.576575I$	$-8.66253 - 0.60401I$	0
$u = -1.320820 - 0.305987I$ $a = -0.970657 + 0.471871I$ $b = 0.994008 - 0.576575I$	$-8.66253 + 0.60401I$	0
$u = -1.229530 + 0.581363I$ $a = -1.51529 + 0.16255I$ $b = 0.80486 - 1.30600I$	$-2.82328 + 12.84140I$	0
$u = -1.229530 - 0.581363I$ $a = -1.51529 - 0.16255I$ $b = 0.80486 + 1.30600I$	$-2.82328 - 12.84140I$	0
$u = -0.081073 + 0.634388I$ $a = -0.57920 + 1.93892I$ $b = 0.667637 - 0.038832I$	$1.39414 + 8.18526I$	$-8.00000 - 6.02308I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.081073-0.634388I$ $a=-0.57920-1.93892I$ $b=\ 0.667637+0.038832I$	$1.39414-8.18526I$	$-8.00000+6.02308I$
$u=\ 0.133983+1.370320I$ $a=-0.176285-0.077669I$ $b=\ 0.479349-1.177650I$	$4.60946+12.50000I$	0
$u=\ 0.133983-1.370320I$ $a=-0.176285+0.077669I$ $b=\ 0.479349+1.177650I$	$4.60946-12.50000I$	0
$u=\ 1.022250+0.927072I$ $a=-0.879569+0.239215I$ $b=\ 0.155848+0.747830I$	$3.30780-3.79544I$	0
$u=\ 1.022250-0.927072I$ $a=-0.879569-0.239215I$ $b=\ 0.155848-0.747830I$	$3.30780+3.79544I$	0
$u=\ 1.331330+0.381959I$ $a=-0.779290+0.250615I$ $b=\ 0.877413-0.342917I$	$-7.75176-5.15920I$	0
$u=\ 1.331330-0.381959I$ $a=-0.779290-0.250615I$ $b=\ 0.877413+0.342917I$	$-7.75176+5.15920I$	0
$u=-1.300680+0.483221I$ $a=\ 1.63652-0.62460I$ $b=-0.458365+1.149120I$	$4.04375+11.79160I$	0
$u=-1.300680-0.483221I$ $a=\ 1.63652+0.62460I$ $b=-0.458365-1.149120I$	$4.04375-11.79160I$	0
$u=\ 1.286990+0.557136I$ $a=-1.46980-0.51039I$ $b=\ 0.396994+1.115720I$	$5.50576-6.31586I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.286990 - 0.557136I$ $a = -1.46980 + 0.51039I$ $b = 0.396994 - 1.115720I$	$5.50576 + 6.31586I$	0
$u = 0.584949 + 0.076704I$ $a = 1.99785 + 0.94568I$ $b = 0.220757 - 0.047935I$	$-3.40808 - 3.41795I$	$-12.5624 + 7.5263I$
$u = 0.584949 - 0.076704I$ $a = 1.99785 - 0.94568I$ $b = 0.220757 + 0.047935I$	$-3.40808 + 3.41795I$	$-12.5624 - 7.5263I$
$u = -1.31304 + 0.52825I$ $a = -1.336860 - 0.058270I$ $b = 0.684439 - 1.154200I$	$-6.71138 + 5.53970I$	0
$u = -1.31304 - 0.52825I$ $a = -1.336860 + 0.058270I$ $b = 0.684439 + 1.154200I$	$-6.71138 - 5.53970I$	0
$u = 1.41796 + 0.06674I$ $a = 1.086540 - 0.564100I$ $b = -0.761987 + 0.296099I$	$-3.75489 + 0.94268I$	0
$u = 1.41796 - 0.06674I$ $a = 1.086540 + 0.564100I$ $b = -0.761987 - 0.296099I$	$-3.75489 - 0.94268I$	0
$u = 1.42839 + 0.06148I$ $a = 0.253580 + 1.181790I$ $b = 0.098213 - 0.729668I$	$-5.41020 + 4.16901I$	0
$u = 1.42839 - 0.06148I$ $a = 0.253580 - 1.181790I$ $b = 0.098213 + 0.729668I$	$-5.41020 - 4.16901I$	0
$u = 0.198864 + 0.484216I$ $a = -1.30565 + 0.77322I$ $b = -0.246729 + 1.025190I$	$1.60128 + 2.42323I$	$-1.73398 - 3.95497I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.198864 - 0.484216I$ $a = -1.30565 - 0.77322I$ $b = -0.246729 - 1.025190I$	$1.60128 - 2.42323I$	$-1.73398 + 3.95497I$
$u = -1.47990 + 0.07008I$ $a = -0.877034 - 0.889238I$ $b = \quad 0.560529 + 0.541559I$	$-3.83288 + 3.79285I$	0
$u = -1.47990 - 0.07008I$ $a = -0.877034 + 0.889238I$ $b = \quad 0.560529 - 0.541559I$	$-3.83288 - 3.79285I$	0
$u = -0.13599 + 1.47908I$ $a = \quad 0.0739833 - 0.0767256I$ $b = -0.375845 - 1.149340I$	$6.50441 - 5.94282I$	0
$u = -0.13599 - 1.47908I$ $a = \quad 0.0739833 + 0.0767256I$ $b = -0.375845 + 1.149340I$	$6.50441 + 5.94282I$	0
$u = -1.49434 + 0.02009I$ $a = -0.456192 + 1.177390I$ $b = \quad 0.133695 - 0.772919I$	$-4.73832 - 0.38790I$	0
$u = -1.49434 - 0.02009I$ $a = -0.456192 - 1.177390I$ $b = \quad 0.133695 + 0.772919I$	$-4.73832 + 0.38790I$	0
$u = \quad 1.30351 + 0.73626I$ $a = -1.109790 + 0.175389I$ $b = \quad 0.590111 + 1.188640I$	$-5.12687 - 10.59660I$	0
$u = \quad 1.30351 - 0.73626I$ $a = -1.109790 - 0.175389I$ $b = \quad 0.590111 - 1.188640I$	$-5.12687 + 10.59660I$	0
$u = -0.472198$ $a = -0.980608$ $b = -0.240471$	-0.873944	-11.3200

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.39473 + 0.66927I$ $a = -1.41128 - 0.14010I$ $b = 0.72278 + 1.30496I$	$0.6185 - 19.5039I$	0
$u = 1.39473 - 0.66927I$ $a = -1.41128 + 0.14010I$ $b = 0.72278 - 1.30496I$	$0.6185 + 19.5039I$	0
$u = -1.39530 + 0.69232I$ $a = 1.284960 - 0.153364I$ $b = -0.66789 + 1.31715I$	$2.52905 + 13.22840I$	0
$u = -1.39530 - 0.69232I$ $a = 1.284960 + 0.153364I$ $b = -0.66789 - 1.31715I$	$2.52905 - 13.22840I$	0
$u = -0.171420 + 0.331367I$ $a = -0.138247 + 0.204111I$ $b = -0.377240 + 0.333903I$	$-0.529190 + 1.139020I$	$-6.86015 - 5.72368I$
$u = -0.171420 - 0.331367I$ $a = -0.138247 - 0.204111I$ $b = -0.377240 - 0.333903I$	$-0.529190 - 1.139020I$	$-6.86015 + 5.72368I$
$u = -1.43002 + 0.77766I$ $a = -0.514822 - 0.350996I$ $b = 0.317774 - 1.003590I$	$-0.96891 - 2.34725I$	0
$u = -1.43002 - 0.77766I$ $a = -0.514822 + 0.350996I$ $b = 0.317774 + 1.003590I$	$-0.96891 + 2.34725I$	0
$u = 0.044829 + 0.327980I$ $a = 0.88881 + 3.99367I$ $b = -0.555628 - 0.426563I$	$2.90231 - 2.90754I$	$-6.08650 + 2.16213I$
$u = 0.044829 - 0.327980I$ $a = 0.88881 - 3.99367I$ $b = -0.555628 + 0.426563I$	$2.90231 + 2.90754I$	$-6.08650 - 2.16213I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.65126 + 0.43631I$ $a = 0.656643 + 0.186450I$ $b = -0.372828 - 1.246260I$	$0.68459 - 4.60250I$	0
$u = 1.65126 - 0.43631I$ $a = 0.656643 - 0.186450I$ $b = -0.372828 + 1.246260I$	$0.68459 + 4.60250I$	0
$u = -1.42145 + 1.04426I$ $a = 0.574742 + 0.047529I$ $b = -0.376318 + 1.202930I$	$1.63192 + 6.30040I$	0
$u = -1.42145 - 1.04426I$ $a = 0.574742 - 0.047529I$ $b = -0.376318 - 1.202930I$	$1.63192 - 6.30040I$	0
$u = 1.57502 + 1.02516I$ $a = 0.180574 + 0.016421I$ $b = 0.218696 - 0.752405I$	$-3.57750 + 3.11768I$	0
$u = 1.57502 - 1.02516I$ $a = 0.180574 - 0.016421I$ $b = 0.218696 + 0.752405I$	$-3.57750 - 3.11768I$	0
$u = -2.17024 + 0.23937I$ $a = -0.120380 - 0.196384I$ $b = 0.156384 + 0.753648I$	$-2.14768 - 4.66820I$	0
$u = -2.17024 - 0.23937I$ $a = -0.120380 + 0.196384I$ $b = 0.156384 - 0.753648I$	$-2.14768 + 4.66820I$	0

II. $I_2^u = \langle -9.48 \times 10^{21} u^{39} - 6.05 \times 10^{22} u^{38} + \cdots + 2.11 \times 10^{21} b + 4.57 \times 10^{23},\ -1.42 \times 10^{23} u^{39} - 1.80 \times 10^{23} u^{38} + \cdots + 4.21 \times 10^{21} a + 1.49 \times 10^{24},\ u^{40} - 20u^{38} + \cdots + 14u + 4 \rangle$

(i) Arc colorings

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

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

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

$$a_9 = \begin{pmatrix} 33.6761u^{39} + 42.6430u^{38} + \cdots - 1494.88u - 354.795 \\ 4.50069u^{39} + 28.6955u^{38} + \cdots - 791.986u - 216.904 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -225.136u^{39} - 83.5293u^{38} + \cdots + 4039.74u + 645.443 \\ 49.8643u^{39} + 4.71989u^{38} + \cdots - 545.450u - 35.8823 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 38.1768u^{39} + 71.3386u^{38} + \cdots - 2286.87u - 571.699 \\ 4.50069u^{39} + 28.6955u^{38} + \cdots - 791.986u - 216.904 \end{pmatrix}$$

$$a_6 = \begin{pmatrix} -37.0474u^{39} - 5.10810u^{38} + \cdots + 421.499u + 40.5509 \\ -76.4610u^{39} - 2.90163u^{38} + \cdots + 672.214u + 27.0564 \end{pmatrix}$$

$$a_{12} = \begin{pmatrix} -23.7451u^{39} - 41.2272u^{38} + \cdots + 1203.07u + 300.106 \\ -4.10810u^{39} - 17.0156u^{38} + \cdots + 557.214u + 148.189 \end{pmatrix}$$

$$a_7 = \begin{pmatrix} 9.32596u^{39} + 11.0346u^{38} + \cdots - 513.093u - 119.223 \\ -97.5240u^{39} - 1.28982u^{38} + \cdots + 797.172u + 12.0812 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -259.538u^{39} - 144.452u^{38} + \cdots + 5983.77u + 1133.31 \\ 40.4005u^{39} - 8.81645u^{38} + \cdots - 256.130u + 22.2754 \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} -26.4926u^{39} - 40.4211u^{38} + \cdots + 1191.96u + 290.719 \\ -5.72183u^{39} - 16.3457u^{38} + \cdots + 546.399u + 142.028 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{1740222269055203962231138}{2106771835075375814357}u^{39} + \frac{5968797855379154343430 82}{21067718350753758143 57}u^{38} + \cdots - \frac{28411807985490943844956694}{21067718350753758143 57}u - \frac{42407049101099836093 93577}{21067718350753758143 57}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{40} - 20u^{39} + \cdots - 22u + 1$
c_2	$u^{40} + 10u^{38} + \cdots + 2u + 1$
c_3	$u^{40} + 2u^{38} + \cdots + 4u + 11$
c_4	$u^{40} - 20u^{38} + \cdots + 14u + 4$
c_5	$u^{40} - 4u^{39} + \cdots + 12u^2 + 1$
c_6	$u^{40} - 17u^{38} + \cdots - u + 1$
c_7	$u^{40} + 10u^{38} + \cdots - 2u + 1$
c_8	$u^{40} + 4u^{39} + \cdots + 12u^2 + 1$
c_9	$u^{40} - 6u^{39} + \cdots + 2u + 1$
c_{10}	$u^{40} - 20u^{38} + \cdots - 14u + 4$
c_{11}	$u^{40} - 17u^{38} + \cdots + u + 1$
c_{12}	$u^{40} + 6u^{39} + \cdots - 2u + 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{40} + 20y^{39} + \cdots + 2y + 1$
c_2, c_7	$y^{40} + 20y^{39} + \cdots + 22y + 1$
c_3	$y^{40} + 4y^{39} + \cdots + 2338y + 121$
c_4, c_{10}	$y^{40} - 40y^{39} + \cdots - 412y + 16$
c_5, c_8	$y^{40} + 20y^{39} + \cdots + 24y + 1$
c_6, c_{11}	$y^{40} - 34y^{39} + \cdots - 31y + 1$
c_9, c_{12}	$y^{40} + 18y^{39} + \cdots + 22y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.899350 + 0.577529I$ $a = -1.98711 + 0.45610I$ $b = 0.622607 + 0.693283I$	$2.88731 - 4.43937I$	0
$u = 0.899350 - 0.577529I$ $a = -1.98711 - 0.45610I$ $b = 0.622607 - 0.693283I$	$2.88731 + 4.43937I$	0
$u = -0.771374 + 0.507840I$ $a = 2.33038 + 1.36972I$ $b = -0.415320 + 0.595857I$	$1.21042 + 8.79302I$	$-8.0000 - 15.2951I$
$u = -0.771374 - 0.507840I$ $a = 2.33038 - 1.36972I$ $b = -0.415320 - 0.595857I$	$1.21042 - 8.79302I$	$-8.0000 + 15.2951I$
$u = 0.818884 + 0.725152I$ $a = -0.360691 + 0.099336I$ $b = 0.517521 - 0.918025I$	$3.02155 - 0.68253I$	0
$u = 0.818884 - 0.725152I$ $a = -0.360691 - 0.099336I$ $b = 0.517521 + 0.918025I$	$3.02155 + 0.68253I$	0
$u = 0.789624 + 0.801026I$ $a = 0.095730 - 0.695850I$ $b = -0.281263 - 1.050680I$	$-2.13357 + 1.05561I$	0
$u = 0.789624 - 0.801026I$ $a = 0.095730 + 0.695850I$ $b = -0.281263 + 1.050680I$	$-2.13357 - 1.05561I$	0
$u = 1.134320 + 0.283044I$ $a = 1.65617 - 0.51114I$ $b = -0.486456 - 1.087880I$	$-3.64322 - 7.23389I$	0
$u = 1.134320 - 0.283044I$ $a = 1.65617 + 0.51114I$ $b = -0.486456 + 1.087880I$	$-3.64322 + 7.23389I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.218410 + 0.000708I$ $a = 0.890083 - 0.463578I$ $b = -0.927266 + 0.209096I$	$-6.27940 - 2.87115I$	0
$u = 1.218410 - 0.000708I$ $a = 0.890083 + 0.463578I$ $b = -0.927266 - 0.209096I$	$-6.27940 + 2.87115I$	0
$u = -1.220170 + 0.001959I$ $a = -1.38349 + 0.35168I$ $b = 1.202370 - 0.225851I$	$-5.23034 + 1.12832I$	0
$u = -1.220170 - 0.001959I$ $a = -1.38349 - 0.35168I$ $b = 1.202370 + 0.225851I$	$-5.23034 - 1.12832I$	0
$u = -1.219900 + 0.210977I$ $a = -1.71901 + 0.11396I$ $b = 0.570103 - 1.151380I$	$-2.06361 + 4.49367I$	0
$u = -1.219900 - 0.210977I$ $a = -1.71901 - 0.11396I$ $b = 0.570103 + 1.151380I$	$-2.06361 - 4.49367I$	0
$u = -0.721281 + 0.002861I$ $a = -2.61714 - 0.19059I$ $b = 1.221450 - 0.243129I$	$-3.19463 + 1.13123I$	$-8.02569 + 3.77838I$
$u = -0.721281 - 0.002861I$ $a = -2.61714 + 0.19059I$ $b = 1.221450 + 0.243129I$	$-3.19463 - 1.13123I$	$-8.02569 - 3.77838I$
$u = 0.719567 + 0.000653I$ $a = 3.01855 + 0.49647I$ $b = -0.932208 + 0.203500I$	$-4.24381 - 2.87136I$	$-19.4017 + 5.7536I$
$u = 0.719567 - 0.000653I$ $a = 3.01855 - 0.49647I$ $b = -0.932208 - 0.203500I$	$-4.24381 + 2.87136I$	$-19.4017 - 5.7536I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.018040 + 0.830561I$ $a = -1.076150 + 0.236670I$ $b = 0.508537 + 0.998667I$	$3.19718 - 5.06362I$	0
$u = 1.018040 - 0.830561I$ $a = -1.076150 - 0.236670I$ $b = 0.508537 - 0.998667I$	$3.19718 + 5.06362I$	0
$u = 0.585960 + 0.313272I$ $a = -0.282092 + 1.384440I$ $b = 0.30459 - 1.58825I$	$6.44692 - 0.07336I$	$0.630571 - 0.867125I$
$u = 0.585960 - 0.313272I$ $a = -0.282092 - 1.384440I$ $b = 0.30459 + 1.58825I$	$6.44692 + 0.07336I$	$0.630571 + 0.867125I$
$u = 1.374750 + 0.067097I$ $a = 0.238618 - 1.251340I$ $b = -0.230712 + 0.549070I$	$-5.85987 - 3.57562I$	0
$u = 1.374750 - 0.067097I$ $a = 0.238618 + 1.251340I$ $b = -0.230712 - 0.549070I$	$-5.85987 + 3.57562I$	0
$u = -0.574505 + 0.218738I$ $a = 0.16213 + 1.49614I$ $b = -0.04533 - 1.65778I$	$6.00470 + 6.07612I$	$-1.36573 - 1.75090I$
$u = -0.574505 - 0.218738I$ $a = 0.16213 - 1.49614I$ $b = -0.04533 + 1.65778I$	$6.00470 - 6.07612I$	$-1.36573 + 1.75090I$
$u = -1.409820 + 0.031067I$ $a = -0.654868 + 1.133550I$ $b = 0.142132 - 0.501677I$	$-5.27021 - 0.62979I$	0
$u = -1.409820 - 0.031067I$ $a = -0.654868 - 1.133550I$ $b = 0.142132 + 0.501677I$	$-5.27021 + 0.62979I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.443927+0.269390I$ $a=\ \ 1.58753-0.09432I$ $b=\ \ 0.248336+1.022720I$	$0.67491-2.42493I$	$-11.29395+4.18149I$
$u=-0.443927-0.269390I$ $a=\ \ 1.58753+0.09432I$ $b=\ \ 0.248336-1.022720I$	$0.67491+2.42493I$	$-11.29395-4.18149I$
$u=-0.286500+0.407663I$ $a=-0.14679+2.97210I$ $b=-0.133268+0.816509I$	$-0.69255+1.78645I$	$-5.62644-4.45755I$
$u=-0.286500-0.407663I$ $a=-0.14679-2.97210I$ $b=-0.133268-0.816509I$	$-0.69255-1.78645I$	$-5.62644+4.45755I$
$u=-1.55661+0.45423I$ $a=-0.638502+0.100725I$ $b=\ \ 0.303109-1.266040I$	$0.75342+5.34406I$	0
$u=-1.55661-0.45423I$ $a=-0.638502-0.100725I$ $b=\ \ 0.303109+1.266040I$	$0.75342-5.34406I$	0
$u=\ \ 1.55854+0.78714I$ $a=-0.317470-0.309119I$ $b=-0.170827+0.809194I$	$-3.20962+3.06740I$	0
$u=\ \ 1.55854-0.78714I$ $a=-0.317470+0.309119I$ $b=-0.170827-0.809194I$	$-3.20962-3.06740I$	0
$u=-1.91336+0.27223I$ $a=-0.295881+0.193659I$ $b=-0.018100-0.696067I$	$-2.11477-4.17128I$	0
$u=-1.91336-0.27223I$ $a=-0.295881-0.193659I$ $b=-0.018100+0.696067I$	$-2.11477+4.17128I$	0

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{40}-20u^{39}+\cdots-22u+1)(u^{148}+61u^{147}+\cdots-482592u+289)$
c_2	$(u^{40}+10u^{38}+\cdots+2u+1)(u^{148}+u^{147}+\cdots+756u-17)$
c_3	$(u^{40}+2u^{38}+\cdots+4u+11)$ $\cdot(u^{148}+u^{147}+\cdots+218802202u-23765389)$
c_4	$(u^{40}-20u^{38}+\cdots+14u+4)(u^{148}-u^{147}+\cdots-53808u-30112)$
c_5	$(u^{40}-4u^{39}+\cdots+12u^2+1)(u^{148}-3u^{147}+\cdots-2u+1)$
c_6	$(u^{40}-17u^{38}+\cdots-u+1)(u^{148}+u^{147}+\cdots+72727u-63873)$
c_7	$(u^{40}+10u^{38}+\cdots-2u+1)(u^{148}+u^{147}+\cdots+756u-17)$
c_8	$(u^{40}+4u^{39}+\cdots+12u^2+1)(u^{148}-3u^{147}+\cdots-2u+1)$
c_9	$(u^{40}-6u^{39}+\cdots+2u+1)(u^{148}-3u^{147}+\cdots+27474u-19583)$
c_{10}	$(u^{40}-20u^{38}+\cdots-14u+4)(u^{148}-u^{147}+\cdots-53808u-30112)$
c_{11}	$(u^{40}-17u^{38}+\cdots+u+1)(u^{148}+u^{147}+\cdots+72727u-63873)$
c_{12}	$(u^{40}+6u^{39}+\cdots-2u+1)(u^{148}-3u^{147}+\cdots+27474u-19583)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{40}+20y^{39}+\cdots+2y+1)$ $\cdot(y^{148}+73y^{147}+\cdots-238131873368y+83521)$
c_2, c_7	$(y^{40}+20y^{39}+\cdots+22y+1)(y^{148}+61y^{147}+\cdots-482592y+289)$
c_3	$(y^{40}+4y^{39}+\cdots+2338y+121)$ $\cdot(y^{148}+33y^{147}+\cdots+2075029942090772y+564793714321321)$
c_4, c_{10}	$(y^{40}-40y^{39}+\cdots-412y+16)$ $\cdot(y^{148}-103y^{147}+\cdots-18411894016y+906732544)$
c_5, c_8	$(y^{40}+20y^{39}+\cdots+24y+1)(y^{148}+77y^{147}+\cdots+6y+1)$
c_6, c_{11}	$(y^{40}-34y^{39}+\cdots-31y+1)$ $\cdot(y^{148}-93y^{147}+\cdots-115187567377y+4079760129)$
c_9, c_{12}	$(y^{40}+18y^{39}+\cdots+22y+1)$ $\cdot(y^{148}+83y^{147}+\cdots+12878707260y+383493889)$