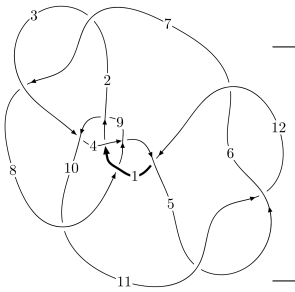
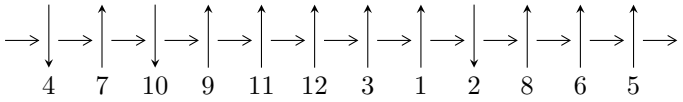
$12a_{1072}$ $(K12a_{1072})$



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned} I_1^u = \langle & 6.92052 \times 10^{288} u^{153} + 3.23848 \times 10^{289} u^{152} + \cdots + 2.10567 \times 10^{289} b + 9.66356 \times 10^{290}, \\ & 8.62661 \times 10^{290} u^{153} + 5.83689 \times 10^{290} u^{152} + \cdots + 1.03178 \times 10^{291} a + 6.04649 \times 10^{292}, \\ & u^{154} + u^{153} + \cdots + 572u + 49 \rangle \\ I_2^u = \langle & 131u^{33} + 320u^{32} + \cdots + 29b + 254,\ 39u^{33} - 154u^{32} + \cdots + 29a + 266,\ u^{34} - 17u^{32} + \cdots + 8u - 1 \rangle \end{aligned}$$

* 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. $\boldsymbol{I_1^u = \langle 6.92 \times 10^{288} u^{153} + 3.24 \times 10^{289} u^{152} + \cdots + 2.11 \times 10^{289} b + 9.66 \times 10^{290},\ 8.63 \times 10^{290} u^{153} + 5.84 \times 10^{290} u^{152} + \cdots + 1.03 \times 10^{291} a + 6.05 \times 10^{292},\ u^{154} + u^{153} + \cdots + 572u + 49 \rangle}$

(i) Arc colorings

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

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

$$a_6 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

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

$$a_7 = \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^3 + 2u \\ -u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -0.836091u^{153} - 0.565712u^{152} + \cdots - 584.309u - 58.6026 \\ -0.328661u^{153} - 1.53798u^{152} + \cdots - 489.932u - 45.8930 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 0.112124u^{153} + 0.849429u^{152} + \cdots + 114.420u + 6.91067 \\ 3.28754u^{153} + 0.173793u^{152} + \cdots + 1256.42u + 117.530 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -3.21081u^{153} + 1.99563u^{152} + \cdots - 1542.74u - 138.134 \\ -1.77663u^{153} + 2.17174u^{152} + \cdots - 523.262u - 44.5739 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} 3.89771u^{153} - 1.55113u^{152} + \cdots + 1539.52u + 140.027 \\ 4.11046u^{153} - 3.67254u^{152} + \cdots + 823.579u + 74.3562 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} -1.88491u^{153} + 0.809201u^{152} + \cdots - 968.956u - 100.031 \\ -4.29184u^{153} + 1.77326u^{152} + \cdots - 1544.83u - 143.097 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -4.27600u^{153} + 1.26668u^{152} + \cdots - 2150.52u - 195.941 \\ -7.94334u^{153} + 3.53383u^{152} + \cdots - 2913.25u - 262.894 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4.33212u^{153} - 0.684610u^{152} + \cdots - 1911.81u - 170.082$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{154} - 14u^{153} + \cdots + 40u - 1$
c_2, c_7	$u^{154} + u^{153} + \cdots + 1715u - 2401$
c_3	$u^{154} + u^{153} + \cdots - 148813u + 30543$
c_4	$u^{154} + 3u^{153} + \cdots + 6894u + 41$
c_5, c_6, c_{11}	$u^{154} + u^{153} + \cdots + 572u + 49$
c_8	$u^{154} + 7u^{152} + \cdots + 1316u + 187$
c_9	$u^{154} - 3u^{153} + \cdots + 1930u - 83$
c_{10}	$u^{154} - 7u^{153} + \cdots + 13536812u - 792892$
c_{12}	$u^{154} - 6u^{153} + \cdots - 118592654u - 10006731$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{154} + 4y^{153} + \cdots - 96y + 1$
c_2, c_7	$y^{154} - 87y^{153} + \cdots + 38235925y + 5764801$
c_3	$y^{154} + 33y^{153} + \cdots + 26474687753y + 932874849$
c_4	$y^{154} + 19y^{153} + \cdots - 54147834y + 1681$
c_5, c_6, c_{11}	$y^{154} - 137y^{153} + \cdots + 38356y + 2401$
c_8	$y^{154} + 14y^{153} + \cdots - 2877044y + 34969$
c_9	$y^{154} + y^{153} + \cdots - 2295640y + 6889$
c_{10}	$y^{154} - 27y^{153} + \cdots - 308019410590464y + 628677723664$
c_{12}	$y^{154} + 28y^{153} + \cdots + 1260521920984700y + 100134665306361$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.927461+0.345607I$ $a=\ \ 0.571854+0.712390I$ $b=\ \ 0.698035+1.094410I$	$-0.40591+5.13144I$	0
$u=-0.927461-0.345607I$ $a=\ \ 0.571854-0.712390I$ $b=\ \ 0.698035-1.094410I$	$-0.40591-5.13144I$	0
$u=-1.010770+0.201290I$ $a=-0.460389+0.536054I$ $b=-0.168033+0.927326I$	$-1.90062-2.37239I$	0
$u=-1.010770-0.201290I$ $a=-0.460389-0.536054I$ $b=-0.168033-0.927326I$	$-1.90062+2.37239I$	0
$u=-0.746757+0.613077I$ $a=-1.227500-0.317196I$ $b=-0.816114-0.778786I$	$-0.94391+1.96290I$	0
$u=-0.746757-0.613077I$ $a=-1.227500+0.317196I$ $b=-0.816114+0.778786I$	$-0.94391-1.96290I$	0
$u=\ \ 0.862818+0.591068I$ $a=-0.045042+0.471122I$ $b=\ \ 0.042710+0.628655I$	$0.85502-2.26604I$	0
$u=\ \ 0.862818-0.591068I$ $a=-0.045042-0.471122I$ $b=\ \ 0.042710-0.628655I$	$0.85502+2.26604I$	0
$u=\ \ 0.483374+0.948619I$ $a=\ \ 0.803786-0.037733I$ $b=\ \ 0.595537-0.219838I$	$1.84173-2.95635I$	0
$u=\ \ 0.483374-0.948619I$ $a=\ \ 0.803786+0.037733I$ $b=\ \ 0.595537+0.219838I$	$1.84173+2.95635I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 0.952917 + 0.508089I$ $a = -0.976169 + 0.598595I$ $b = -0.91006 + 1.10434I$	$2.83236 - 10.67170I$	0
$u = \quad 0.952917 - 0.508089I$ $a = -0.976169 - 0.598595I$ $b = -0.91006 - 1.10434I$	$2.83236 + 10.67170I$	0
$u = \quad 0.886976 + 0.633968I$ $a = -0.344079 - 0.873989I$ $b = -0.733983 - 0.617344I$	$3.27656 + 8.53519I$	0
$u = \quad 0.886976 - 0.633968I$ $a = -0.344079 + 0.873989I$ $b = -0.733983 + 0.617344I$	$3.27656 - 8.53519I$	0
$u = \quad 0.281881 + 0.853471I$ $a = -0.391485 + 1.110960I$ $b = \quad 0.251039 + 0.757686I$	$-0.97354 + 7.22662I$	0
$u = \quad 0.281881 - 0.853471I$ $a = -0.391485 - 1.110960I$ $b = \quad 0.251039 - 0.757686I$	$-0.97354 - 7.22662I$	0
$u = -0.086276 + 0.884667I$ $a = \quad 0.143622 - 1.066430I$ $b = \quad 0.121995 - 0.314126I$	$0.672030 - 0.579524I$	0
$u = -0.086276 - 0.884667I$ $a = \quad 0.143622 + 1.066430I$ $b = \quad 0.121995 + 0.314126I$	$0.672030 + 0.579524I$	0
$u = -1.105370 + 0.141236I$ $a = \quad 0.587760 + 0.026600I$ $b = -0.810615 - 0.580088I$	$5.03507 + 2.42489I$	0
$u = -1.105370 - 0.141236I$ $a = \quad 0.587760 - 0.026600I$ $b = -0.810615 + 0.580088I$	$5.03507 - 2.42489I$	0

	Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=$	$0.242209+0.848590I$		
$a=$	$0.36042+2.39047I$	$0.6384+15.4605I$	0
$b=$	$0.98628+1.24227I$		
$u=$	$0.242209-0.848590I$		
$a=$	$0.36042-2.39047I$	$0.6384-15.4605I$	0
$b=$	$0.98628-1.24227I$		
$u=$	$1.053650+0.402796I$		
$a=$	$0.915371-0.635809I$	$-0.562944+0.950486I$	0
$b=$	$0.656843-1.086280I$		
$u=$	$1.053650-0.402796I$		
$a=$	$0.915371+0.635809I$	$-0.562944-0.950486I$	0
$b=$	$0.656843+1.086280I$		
$u=$	$-0.306711+0.801519I$		
$a=$	$0.51366-2.25002I$	$-2.36458-6.65719I$	0
$b=$	$0.97157-1.22070I$		
$u=$	$-0.306711-0.801519I$		
$a=$	$0.51366+2.25002I$	$-2.36458+6.65719I$	0
$b=$	$0.97157+1.22070I$		
$u=$	$0.159307+0.813312I$		
$a=$	$-0.39611-2.39837I$	$-3.30262+3.43339I$	0
$b=$	$-0.81842-1.20208I$		
$u=$	$0.159307-0.813312I$		
$a=$	$-0.39611+2.39837I$	$-3.30262-3.43339I$	0
$b=$	$-0.81842+1.20208I$		
$u=$	$-0.781148+0.273232I$		
$a=$	$-0.190786-0.963389I$	$-0.17129-4.74542I$	0
$b=$	$0.569949-0.950312I$		
$u=$	$-0.781148-0.273232I$		
$a=$	$-0.190786+0.963389I$	$-0.17129+4.74542I$	0
$b=$	$0.569949+0.950312I$		

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.216403+0.783124I$ $a=\ \ 0.02588+2.40282I$ $b=-0.82581+1.18258I$	$-2.63970-9.31367I$	0
$u=-0.216403-0.783124I$ $a=\ \ 0.02588-2.40282I$ $b=-0.82581-1.18258I$	$-2.63970+9.31367I$	0
$u=\ \ 0.575349+0.509126I$ $a=-0.572498-0.147197I$ $b=-0.616975+0.698394I$	$4.36358-0.75106I$	0
$u=\ \ 0.575349-0.509126I$ $a=-0.572498+0.147197I$ $b=-0.616975-0.698394I$	$4.36358+0.75106I$	0
$u=-1.217750+0.213144I$ $a=\ \ 2.32793+0.72652I$ $b=-0.015503+0.221781I$	$3.36102+3.27740I$	0
$u=-1.217750-0.213144I$ $a=\ \ 2.32793-0.72652I$ $b=-0.015503-0.221781I$	$3.36102-3.27740I$	0
$u=\ \ 1.210250+0.283808I$ $a=\ \ 0.350533-1.155720I$ $b=\ \ 0.318071-0.806501I$	$0.88203+1.22872I$	0
$u=\ \ 1.210250-0.283808I$ $a=\ \ 0.350533+1.155720I$ $b=\ \ 0.318071+0.806501I$	$0.88203-1.22872I$	0
$u=\ \ 0.056127+0.753685I$ $a=-1.00444-2.45512I$ $b=-1.20792-1.19422I$	$-2.03527+5.47232I$	0
$u=\ \ 0.056127-0.753685I$ $a=-1.00444+2.45512I$ $b=-1.20792+1.19422I$	$-2.03527-5.47232I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.242890+0.102023I$ $a=\ \ 0.67636+1.67439I$ $b=-1.59234-0.28562I$	$5.07445+4.64277I$	0
$u=-1.242890-0.102023I$ $a=\ \ 0.67636-1.67439I$ $b=-1.59234+0.28562I$	$5.07445-4.64277I$	0
$u=\ \ 0.054789+0.750359I$ $a=\ \ 0.14867-2.39554I$ $b=-0.373742-0.841489I$	$-2.62480+2.53088I$	0
$u=\ \ 0.054789-0.750359I$ $a=\ \ 0.14867+2.39554I$ $b=-0.373742+0.841489I$	$-2.62480-2.53088I$	0
$u=-0.177957+0.727362I$ $a=\ \ 0.103154-1.089410I$ $b=\ \ 0.958760-0.406201I$	$2.52652-5.87194I$	0
$u=-0.177957-0.727362I$ $a=\ \ 0.103154+1.089410I$ $b=\ \ 0.958760+0.406201I$	$2.52652+5.87194I$	0
$u=\ \ 1.213530+0.312350I$ $a=\ \ 0.883124-0.289434I$ $b=\ \ 1.03006-1.24793I$	$1.50891-1.60866I$	0
$u=\ \ 1.213530-0.312350I$ $a=\ \ 0.883124+0.289434I$ $b=\ \ 1.03006+1.24793I$	$1.50891+1.60866I$	0
$u=\ \ 0.031817+0.739153I$ $a=-0.57728-1.88386I$ $b=-0.408354-0.903776I$	$-2.37049+2.06375I$	0
$u=\ \ 0.031817-0.739153I$ $a=-0.57728+1.88386I$ $b=-0.408354+0.903776I$	$-2.37049-2.06375I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.237453+0.693513I$ $a=0.926481+0.745244I$ $b=-0.125006+0.724198I$	$-4.13652-1.08958I$	0
$u=-0.237453-0.693513I$ $a=0.926481-0.745244I$ $b=-0.125006-0.724198I$	$-4.13652+1.08958I$	0
$u=1.248600+0.230177I$ $a=1.025290-0.821994I$ $b=0.010193-0.562579I$	$1.37017+1.35061I$	0
$u=1.248600-0.230177I$ $a=1.025290+0.821994I$ $b=0.010193+0.562579I$	$1.37017-1.35061I$	0
$u=0.324193+0.639588I$ $a=-0.37292+1.45768I$ $b=0.794397+0.830062I$	$3.58264+4.62489I$	$6.00000-6.36906I$
$u=0.324193-0.639588I$ $a=-0.37292-1.45768I$ $b=0.794397-0.830062I$	$3.58264-4.62489I$	$6.00000+6.36906I$
$u=-1.274150+0.177617I$ $a=1.96098+1.20727I$ $b=-0.279677+1.311780I$	$6.16522+0.02142I$	0
$u=-1.274150-0.177617I$ $a=1.96098-1.20727I$ $b=-0.279677-1.311780I$	$6.16522-0.02142I$	0
$u=1.249260+0.336649I$ $a=0.725825-0.411585I$ $b=0.188665-0.964491I$	$1.45473+1.81129I$	0
$u=1.249260-0.336649I$ $a=0.725825+0.411585I$ $b=0.188665+0.964491I$	$1.45473-1.81129I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.243020+0.374967I$ $a=-0.400807-0.861821I$ $b=\ \ 0.103461-0.117002I$	$4.27005-3.94623I$	0
$u=-1.243020-0.374967I$ $a=-0.400807+0.861821I$ $b=\ \ 0.103461+0.117002I$	$4.27005+3.94623I$	0
$u=-1.287510+0.210580I$ $a=-0.834555-0.544861I$ $b=-0.79176-1.58697I$	$1.82927+0.15971I$	0
$u=-1.287510-0.210580I$ $a=-0.834555+0.544861I$ $b=-0.79176+1.58697I$	$1.82927-0.15971I$	0
$u=-1.285830+0.237322I$ $a=-0.465739-1.095680I$ $b=\ \ 0.221383-1.293260I$	$1.55653-5.23786I$	0
$u=-1.285830-0.237322I$ $a=-0.465739+1.095680I$ $b=\ \ 0.221383+1.293260I$	$1.55653+5.23786I$	0
$u=-1.289640+0.219047I$ $a=-0.67999+1.61686I$ $b=\ \ 0.194630+0.834773I$	$0.19938-2.59730I$	0
$u=-1.289640-0.219047I$ $a=-0.67999-1.61686I$ $b=\ \ 0.194630-0.834773I$	$0.19938+2.59730I$	0
$u=\ \ 1.299870+0.164751I$ $a=\ \ 0.080900+1.078540I$ $b=\ \ 1.273270-0.449311I$	$3.08949-0.12155I$	0
$u=\ \ 1.299870-0.164751I$ $a=\ \ 0.080900-1.078540I$ $b=\ \ 1.273270+0.449311I$	$3.08949+0.12155I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.245587+0.638390I$ $a=\ \ 2.53209+0.47153I$ $b=\ \ 1.67963+0.57965I$	$2.56524-6.84359I$	$11.6477+10.2192I$
$u=-0.245587-0.638390I$ $a=\ \ 2.53209-0.47153I$ $b=\ \ 1.67963-0.57965I$	$2.56524+6.84359I$	$11.6477-10.2192I$
$u=-0.005331+0.682509I$ $a=-0.79552-1.94814I$ $b=-0.237939-0.962473I$	$-2.38240+2.00040I$	$1.37127-4.02567I$
$u=-0.005331-0.682509I$ $a=-0.79552+1.94814I$ $b=-0.237939+0.962473I$	$-2.38240-2.00040I$	$1.37127+4.02567I$
$u=\ \ 1.317320+0.122192I$ $a=\ \ 0.429833+1.196260I$ $b=-0.580798+0.938573I$	$6.45327-3.68927I$	0
$u=\ \ 1.317320-0.122192I$ $a=\ \ 0.429833-1.196260I$ $b=-0.580798-0.938573I$	$6.45327+3.68927I$	0
$u=-1.289650+0.315303I$ $a=-1.29054-1.58533I$ $b=\ \ 0.357774-0.815738I$	$1.56297-6.38698I$	0
$u=-1.289650-0.315303I$ $a=-1.29054+1.58533I$ $b=\ \ 0.357774+0.815738I$	$1.56297+6.38698I$	0
$u=\ \ 1.305890+0.241641I$ $a=-1.84496+0.35076I$ $b=\ \ 0.342334+0.469472I$	$0.49222+3.43137I$	0
$u=\ \ 1.305890-0.241641I$ $a=-1.84496-0.35076I$ $b=\ \ 0.342334-0.469472I$	$0.49222-3.43137I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.099577+0.663417I$ $a=-1.49114+2.44767I$ $b=-0.076571+0.539335I$	$0.01977-6.43626I$	$0.46155+8.86012I$
$u=-0.099577-0.663417I$ $a=-1.49114-2.44767I$ $b=-0.076571-0.539335I$	$0.01977+6.43626I$	$0.46155-8.86012I$
$u=-1.292970+0.313632I$ $a=-0.69694-1.32877I$ $b=\ \ 0.593827-0.942249I$	$1.77843-5.87906I$	0
$u=-1.292970-0.313632I$ $a=-0.69694+1.32877I$ $b=\ \ 0.593827+0.942249I$	$1.77843+5.87906I$	0
$u=\ \ 1.317840+0.233872I$ $a=\ \ 1.57057-1.33587I$ $b=-1.22768-1.33972I$	$2.24031+6.00533I$	0
$u=\ \ 1.317840-0.233872I$ $a=\ \ 1.57057+1.33587I$ $b=-1.22768+1.33972I$	$2.24031-6.00533I$	0
$u=-1.304820+0.312787I$ $a=-1.17852-1.82056I$ $b=\ \ 1.37219-1.16236I$	$2.22017-9.31903I$	0
$u=-1.304820-0.312787I$ $a=-1.17852+1.82056I$ $b=\ \ 1.37219+1.16236I$	$2.22017+9.31903I$	0
$u=\ \ 1.332450+0.268889I$ $a=\ \ 0.30937+1.70442I$ $b=\ \ 0.053201+0.745514I$	$4.53872+9.82699I$	0
$u=\ \ 1.332450-0.268889I$ $a=\ \ 0.30937-1.70442I$ $b=\ \ 0.053201-0.745514I$	$4.53872-9.82699I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.341150 + 0.233736I$ $a = -1.42873 + 1.52710I$ $b = 0.31254 + 1.66322I$	$7.11773 + 5.58500I$	0
$u = 1.341150 - 0.233736I$ $a = -1.42873 - 1.52710I$ $b = 0.31254 - 1.66322I$	$7.11773 - 5.58500I$	0
$u = 1.353860 + 0.170918I$ $a = -0.054631 - 0.243033I$ $b = -0.88173 + 1.29481I$	$7.90755 + 1.15105I$	0
$u = 1.353860 - 0.170918I$ $a = -0.054631 + 0.243033I$ $b = -0.88173 - 1.29481I$	$7.90755 - 1.15105I$	0
$u = -0.475213 + 0.420175I$ $a = -0.52602 + 2.78054I$ $b = -1.06289 + 1.00975I$	$3.53086 + 3.56258I$	$13.12101 - 4.27600I$
$u = -0.475213 - 0.420175I$ $a = -0.52602 - 2.78054I$ $b = -1.06289 - 1.00975I$	$3.53086 - 3.56258I$	$13.12101 + 4.27600I$
$u = -1.365860 + 0.046277I$ $a = 1.156000 + 0.139591I$ $b = -0.952301 + 0.679905I$	$6.84876 - 0.97616I$	0
$u = -1.365860 - 0.046277I$ $a = 1.156000 - 0.139591I$ $b = -0.952301 - 0.679905I$	$6.84876 + 0.97616I$	0
$u = -1.342850 + 0.254146I$ $a = 0.174806 - 0.890178I$ $b = 1.286480 + 0.503519I$	$4.39240 - 5.62462I$	0
$u = -1.342850 - 0.254146I$ $a = 0.174806 + 0.890178I$ $b = 1.286480 - 0.503519I$	$4.39240 + 5.62462I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.622806+0.103056I$ $a=0.733473+0.897374I$ $b=-0.646437-0.368074I$	$4.79448+2.53540I$	$16.1502-3.0298I$
$u=-0.622806-0.103056I$ $a=0.733473-0.897374I$ $b=-0.646437+0.368074I$	$4.79448-2.53540I$	$16.1502+3.0298I$
$u=0.151780+0.612265I$ $a=-1.58908-0.04517I$ $b=-1.125520+0.275882I$	$-0.31183+2.42662I$	$5.75230-5.56981I$
$u=0.151780-0.612265I$ $a=-1.58908+0.04517I$ $b=-1.125520-0.275882I$	$-0.31183-2.42662I$	$5.75230+5.56981I$
$u=-0.033879+0.605996I$ $a=1.91919+1.73905I$ $b=-0.218275+0.647464I$	$-3.73384-0.33721I$	$0.23306-4.01469I$
$u=-0.033879-0.605996I$ $a=1.91919-1.73905I$ $b=-0.218275-0.647464I$	$-3.73384+0.33721I$	$0.23306+4.01469I$
$u=1.366600+0.303640I$ $a=1.018920-0.969860I$ $b=-1.036340-0.352772I$	$7.41102+9.62053I$	0
$u=1.366600-0.303640I$ $a=1.018920+0.969860I$ $b=-1.036340+0.352772I$	$7.41102-9.62053I$	0
$u=-1.361190+0.343416I$ $a=-1.06206-1.59674I$ $b=0.93794-1.23067I$	$1.49056-7.59816I$	0
$u=-1.361190-0.343416I$ $a=-1.06206+1.59674I$ $b=0.93794+1.23067I$	$1.49056+7.59816I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.042209+0.589562I$ $a=\ 0.50413-3.11062I$ $b=\ 0.97646-1.39737I$	$-2.06991-3.00529I$	$3.45797+1.71764I$
$u=-0.042209-0.589562I$ $a=\ 0.50413+3.11062I$ $b=\ 0.97646+1.39737I$	$-2.06991+3.00529I$	$3.45797-1.71764I$
$u=\ 1.411370+0.033932I$ $a=-1.018740+0.696446I$ $b=\ 0.801939-0.040281I$	$11.03370-2.02041I$	0
$u=\ 1.411370-0.033932I$ $a=-1.018740-0.696446I$ $b=\ 0.801939+0.040281I$	$11.03370+2.02041I$	0
$u=\ 1.39111+0.26505I$ $a=-0.693051-0.936409I$ $b=-1.98761+0.74541I$	$7.76421+10.17900I$	0
$u=\ 1.39111-0.26505I$ $a=-0.693051+0.936409I$ $b=-1.98761-0.74541I$	$7.76421-10.17900I$	0
$u=-0.097422+0.572014I$ $a=\ 0.04795+4.13629I$ $b=-0.13301+1.43433I$	$2.53562-2.61678I$	$7.65323+3.37494I$
$u=-0.097422-0.572014I$ $a=\ 0.04795-4.13629I$ $b=-0.13301-1.43433I$	$2.53562+2.61678I$	$7.65323-3.37494I$
$u=\ 1.37127+0.38317I$ $a=\ 0.411591-0.951983I$ $b=-0.288907-0.451225I$	$5.31823+5.16393I$	0
$u=\ 1.37127-0.38317I$ $a=\ 0.411591+0.951983I$ $b=-0.288907+0.451225I$	$5.31823-5.16393I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 1.39109 + 0.32342I$ $a = -1.27596 + 1.43874I$ $b = 0.91908 + 1.20609I$	$2.45921 + 13.31740I$	0
$u = 1.39109 - 0.32342I$ $a = -1.27596 - 1.43874I$ $b = 0.91908 - 1.20609I$	$2.45921 - 13.31740I$	0
$u = -1.40726 + 0.25675I$ $a = 1.21867 + 0.82570I$ $b = -0.927106 + 0.823962I$	$9.05767 - 7.90642I$	0
$u = -1.40726 - 0.25675I$ $a = 1.21867 - 0.82570I$ $b = -0.927106 - 0.823962I$	$9.05767 + 7.90642I$	0
$u = 1.41636 + 0.28687I$ $a = -0.813693 + 0.144583I$ $b = 0.314338 + 0.586404I$	$1.18201 + 4.67102I$	0
$u = 1.41636 - 0.28687I$ $a = -0.813693 - 0.144583I$ $b = 0.314338 - 0.586404I$	$1.18201 - 4.67102I$	0
$u = 1.44559 + 0.01179I$ $a = 0.613436 - 0.246027I$ $b = -0.840708 + 0.799253I$	$6.80868 - 4.89337I$	0
$u = 1.44559 - 0.01179I$ $a = 0.613436 + 0.246027I$ $b = -0.840708 - 0.799253I$	$6.80868 + 4.89337I$	0
$u = 1.44646 + 0.13225I$ $a = -0.687178 + 1.052560I$ $b = 1.38508 + 1.66807I$	$9.69626 - 1.57200I$	0
$u = 1.44646 - 0.13225I$ $a = -0.687178 - 1.052560I$ $b = 1.38508 - 1.66807I$	$9.69626 + 1.57200I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.41225+0.35137I$ $a=\ \ 1.04127+1.59289I$ $b=-1.07034+1.30531I$	$5.8916-19.7868I$	0
$u=-1.41225-0.35137I$ $a=\ \ 1.04127-1.59289I$ $b=-1.07034-1.30531I$	$5.8916+19.7868I$	0
$u=\ \ 1.43168+0.32493I$ $a=\ \ 0.81916-1.50021I$ $b=-1.14887-1.40173I$	$3.16978+10.74400I$	0
$u=\ \ 1.43168-0.32493I$ $a=\ \ 0.81916+1.50021I$ $b=-1.14887+1.40173I$	$3.16978-10.74400I$	0
$u=-1.42760+0.34999I$ $a=\ \ 0.800137+0.665205I$ $b=-0.436085+0.765528I$	$4.45777-11.57030I$	0
$u=-1.42760-0.34999I$ $a=\ \ 0.800137-0.665205I$ $b=-0.436085-0.765528I$	$4.45777+11.57030I$	0
$u=-1.47194$ $a=\ \ 0.152404$ $b=-1.95358$	7.22309	0
$u=\ \ 0.477522+0.201537I$ $a=-0.335158+1.151520I$ $b=\ \ 0.733536+0.515260I$	$1.221320+0.185595I$	$10.16950-2.00322I$
$u=\ \ 0.477522-0.201537I$ $a=-0.335158-1.151520I$ $b=\ \ 0.733536-0.515260I$	$1.221320-0.185595I$	$10.16950+2.00322I$
$u=-1.48224+0.10932I$ $a=-0.268936-0.479318I$ $b=\ \ 0.682969+0.376562I$	$11.12170-1.32657I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-1.48224-0.10932I$ $a=-0.268936+0.479318I$ $b=\ \ 0.682969-0.376562I$	$11.12170+1.32657I$	0
$u=-1.48920+0.22849I$ $a=\ \ 0.038534+0.481933I$ $b=-1.006450+0.213522I$	$8.65591-0.95099I$	0
$u=-1.48920-0.22849I$ $a=\ \ 0.038534-0.481933I$ $b=-1.006450-0.213522I$	$8.65591+0.95099I$	0
$u=\ \ 0.485422$ $a=\ \ 0.280440$ $b=\ \ 0.634586$	0.857296	12.0490
$u=-1.51774+0.04528I$ $a=-0.387912-0.125330I$ $b=\ \ 1.158590-0.797595I$	$11.5235-10.1880I$	0
$u=-1.51774-0.04528I$ $a=-0.387912+0.125330I$ $b=\ \ 1.158590+0.797595I$	$11.5235+10.1880I$	0
$u=-0.333734+0.345049I$ $a=-1.76614-0.05989I$ $b=-0.577943-0.763081I$	$-1.45421+1.78453I$	$-0.112248-1.219299I$
$u=-0.333734-0.345049I$ $a=-1.76614+0.05989I$ $b=-0.577943+0.763081I$	$-1.45421-1.78453I$	$-0.112248+1.219299I$
$u=-0.189391+0.426079I$ $a=\ \ 0.525304+1.248360I$ $b=\ \ 0.682716+1.034730I$	$3.03965+1.07983I$	$8.05417+4.35038I$
$u=-0.189391-0.426079I$ $a=\ \ 0.525304-1.248360I$ $b=\ \ 0.682716-1.034730I$	$3.03965-1.07983I$	$8.05417-4.35038I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \ \ 1.56975$ $a = \ \ 0.142767$ $b = \ \ 1.55545$	7.63894	0
$u = -1.68430$ $a = -0.0947263$ $b = -0.00556291$	10.1752	0
$u = -0.129828 + 0.157428I$ $a = -3.05094 + 4.63072I$ $b = \ \ 0.764905 + 0.606177I$	$2.01233 + 4.97977I$	$8.23013 - 5.61565I$
$u = -0.129828 - 0.157428I$ $a = -3.05094 - 4.63072I$ $b = \ \ 0.764905 - 0.606177I$	$2.01233 - 4.97977I$	$8.23013 + 5.61565I$

II. $I_2^u = \langle 131u^{33} + 320u^{32} + \cdots + 29b + 254,\ 39u^{33} - 154u^{32} + \cdots + 29a + 266,\ u^{34} - 17u^{32} + \cdots + 8u - 1\rangle$

(i) Arc colorings

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

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

$$a_6 = \begin{pmatrix} 1 \\ -u^2 \end{pmatrix}$$

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

$$a_7 = \begin{pmatrix} -u^2 + 1 \\ u^4 - 2u^2 \end{pmatrix}$$

$$a_1 = \begin{pmatrix} -u^3 + 2u \\ -u^3 + u \end{pmatrix}$$

$$a_9 = \begin{pmatrix} -1.34483u^{33} + 5.31034u^{32} + \cdots + 12.7931u - 9.17241 \\ -4.51724u^{33} - 11.0345u^{32} + \cdots + 60.6897u - 8.75862 \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 9.86207u^{33} + 18.7241u^{32} + \cdots - 128.483u + 17.9310 \\ -11.1724u^{33} - 9.34483u^{32} + \cdots + 40.8966u - 6.58621 \end{pmatrix}$$

$$a_2 = \begin{pmatrix} -0.448276u^{33} + 3.10345u^{32} + \cdots - 27.0690u + 9.27586 \\ -2u^{33} - u^{32} + \cdots + u + 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -1.34483u^{33} + 4.31034u^{32} + \cdots + 18.7931u - 10.1724 \\ -4.51724u^{33} - 13.0345u^{32} + \cdots + 67.6897u - 9.75862 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} 5.24138u^{33} + 1.48276u^{32} + \cdots + 50.3448u - 15.3793 \\ -10.5172u^{33} - 7.03448u^{32} + \cdots + 15.6897u - 3.75862 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} -1.20690u^{33} + 1.58621u^{32} + \cdots - 21.7241u + 9.89655 \\ 0.689655u^{33} - 4.62069u^{32} + \cdots + 23.4138u - 1.65517 \end{pmatrix}$$

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= \frac{1041}{29}u^{33} + \frac{1009}{29}u^{32} + \cdots - \frac{3998}{29}u + \frac{912}{29}$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{34} - 3u^{33} + \cdots + 2u^2 - 1$
c_2	$u^{34} - 8u^{32} + \cdots + u + 1$
c_3	$u^{34} - 2u^{32} + \cdots - u - 1$
c_4	$u^{34} + u^{32} + \cdots - 4u - 1$
c_5, c_6	$u^{34} - 17u^{32} + \cdots + 8u - 1$
c_7	$u^{34} - 8u^{32} + \cdots - u + 1$
c_8	$u^{34} + u^{33} + \cdots + 4u^2 + 1$
c_9	$u^{34} + 4u^{32} + \cdots + 4u + 1$
c_{10}	$u^{34} - 12u^{33} + \cdots - 56u + 4$
c_{11}	$u^{34} - 17u^{32} + \cdots - 8u - 1$
c_{12}	$u^{34} + 3u^{33} + \cdots - 8u - 1$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{34} - 13y^{33} + \cdots - 4y + 1$
c_2, c_7	$y^{34} - 16y^{33} + \cdots - 31y + 1$
c_3	$y^{34} - 4y^{33} + \cdots + 21y + 1$
c_4	$y^{34} + 2y^{33} + \cdots - 22y + 1$
c_5, c_6, c_{11}	$y^{34} - 34y^{33} + \cdots - 32y + 1$
c_8	$y^{34} + 21y^{33} + \cdots + 8y + 1$
c_9	$y^{34} + 8y^{33} + \cdots + 4y + 1$
c_{10}	$y^{34} + 4y^{33} + \cdots + 80y + 16$
c_{12}	$y^{34} - 9y^{33} + \cdots - 28y + 1$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.526308 + 0.787564I$ $a = 0.864342 + 0.181925I$ $b = 0.485578 - 0.148400I$	$1.52448 - 2.92080I$	$0.91674 + 5.58965I$
$u = 0.526308 - 0.787564I$ $a = 0.864342 - 0.181925I$ $b = 0.485578 + 0.148400I$	$1.52448 + 2.92080I$	$0.91674 - 5.58965I$
$u = -1.164280 + 0.179890I$ $a = -0.684467 - 1.050570I$ $b = 0.457760 - 1.201170I$	$1.26287 - 3.90402I$	$7.85607 + 2.42666I$
$u = -1.164280 - 0.179890I$ $a = -0.684467 + 1.050570I$ $b = 0.457760 + 1.201170I$	$1.26287 + 3.90402I$	$7.85607 - 2.42666I$
$u = 1.155990 + 0.284819I$ $a = -0.22935 - 1.75427I$ $b = -0.622169 - 0.514867I$	$3.49748 + 6.80335I$	$11.5376 - 8.2096I$
$u = 1.155990 - 0.284819I$ $a = -0.22935 + 1.75427I$ $b = -0.622169 + 0.514867I$	$3.49748 - 6.80335I$	$11.5376 + 8.2096I$
$u = -1.195910 + 0.244747I$ $a = -1.075200 - 0.238234I$ $b = -0.89137 - 1.41358I$	$0.732461 + 0.915441I$	$4.04182 - 1.39990I$
$u = -1.195910 - 0.244747I$ $a = -1.075200 + 0.238234I$ $b = -0.89137 + 1.41358I$	$0.732461 - 0.915441I$	$4.04182 + 1.39990I$
$u = 1.220150 + 0.177222I$ $a = -1.284560 + 0.381957I$ $b = 0.956591 - 0.459125I$	$4.33078 - 3.58495I$	$10.35085 + 5.27900I$
$u = 1.220150 - 0.177222I$ $a = -1.284560 - 0.381957I$ $b = 0.956591 + 0.459125I$	$4.33078 + 3.58495I$	$10.35085 - 5.27900I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.532052+0.526498I$ $a=-1.51021-0.47276I$ $b=-0.783339-0.789584I$	$-0.69563+1.42318I$	$10.44389+3.14665I$
$u=-0.532052-0.526498I$ $a=-1.51021+0.47276I$ $b=-0.783339+0.789584I$	$-0.69563-1.42318I$	$10.44389-3.14665I$
$u=-0.131665+0.732350I$ $a=\ \ 0.82839-2.67661I$ $b=\ \ 1.09485-1.31813I$	$-2.39868-4.42435I$	$4.23991+5.65394I$
$u=-0.131665-0.732350I$ $a=\ \ 0.82839+2.67661I$ $b=\ \ 1.09485+1.31813I$	$-2.39868+4.42435I$	$4.23991-5.65394I$
$u=-1.241240+0.212874I$ $a=\ \ 0.81651-1.44311I$ $b=-0.144983-0.774871I$	$-0.17471-2.07205I$	$1.71001-2.67417I$
$u=-1.241240-0.212874I$ $a=\ \ 0.81651+1.44311I$ $b=-0.144983+0.774871I$	$-0.17471+2.07205I$	$1.71001+2.67417I$
$u=\ \ 1.301910+0.008397I$ $a=-1.55655-0.33198I$ $b=\ \ 0.721682+0.892920I$	$7.30584+2.09187I$	$16.7276-4.2341I$
$u=\ \ 1.301910-0.008397I$ $a=-1.55655+0.33198I$ $b=\ \ 0.721682-0.892920I$	$7.30584-2.09187I$	$16.7276+4.2341I$
$u=\ \ 0.196510+0.635568I$ $a=-0.400631-0.095481I$ $b=-0.978314-0.259772I$	$1.32286+6.33923I$	$5.25953-8.51173I$
$u=\ \ 0.196510-0.635568I$ $a=-0.400631+0.095481I$ $b=-0.978314+0.259772I$	$1.32286-6.33923I$	$5.25953+8.51173I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.143113+0.629395I$ $a=-1.57327-0.85037I$ $b=\ \ 0.181906-0.605964I$	$-3.53657-0.88192I$	$7.59270+6.75780I$
$u=-0.143113-0.629395I$ $a=-1.57327+0.85037I$ $b=\ \ 0.181906+0.605964I$	$-3.53657+0.88192I$	$7.59270-6.75780I$
$u=\ \ 1.346010+0.318175I$ $a=\ \ 1.09335-1.73483I$ $b=-1.22377-1.32062I$	$2.26293+8.25380I$	0
$u=\ \ 1.346010-0.318175I$ $a=\ \ 1.09335+1.73483I$ $b=-1.22377+1.32062I$	$2.26293-8.25380I$	0
$u=\ \ 1.375750+0.282089I$ $a=\ \ 1.046070-0.193076I$ $b=-0.302945-0.455018I$	$1.34598+4.25317I$	0
$u=\ \ 1.375750-0.282089I$ $a=\ \ 1.046070+0.193076I$ $b=-0.302945+0.455018I$	$1.34598-4.25317I$	0
$u=-1.379380+0.277388I$ $a=-0.571174-0.499963I$ $b=\ \ 1.115970-0.160071I$	$6.34890-9.73765I$	0
$u=-1.379380-0.277388I$ $a=-0.571174+0.499963I$ $b=\ \ 1.115970+0.160071I$	$6.34890+9.73765I$	0
$u=-1.43986+0.07729I$ $a=\ \ 0.652185+0.579674I$ $b=-0.796103+1.088420I$	$9.18517+1.08798I$	0
$u=-1.43986-0.07729I$ $a=\ \ 0.652185-0.579674I$ $b=-0.796103-1.088420I$	$9.18517-1.08798I$	0

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = \quad 1.51693$ $a = \quad 0.106929$ $b = \quad 1.96030$	6.93169	0
$u = -1.67726$ $a = \quad 0.0243554$ $b = -0.203932$	10.2140	0
$u = \quad 0.185029 + 0.083244I$ $a = -4.48107 + 4.18703I$ $b = -0.149519 + 1.012840I$	$3.52620 - 1.84698I$	$12.93397 + 1.36937I$
$u = \quad 0.185029 - 0.083244I$ $a = -4.48107 - 4.18703I$ $b = -0.149519 - 1.012840I$	$3.52620 + 1.84698I$	$12.93397 - 1.36937I$

III. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$(u^{34}-3u^{33}+\cdots+2u^2-1)(u^{154}-14u^{153}+\cdots+40u-1)$
c_2	$(u^{34}-8u^{32}+\cdots+u+1)(u^{154}+u^{153}+\cdots+1715u-2401)$
c_3	$(u^{34}-2u^{32}+\cdots-u-1)(u^{154}+u^{153}+\cdots-148813u+30543)$
c_4	$(u^{34}+u^{32}+\cdots-4u-1)(u^{154}+3u^{153}+\cdots+6894u+41)$
c_5, c_6	$(u^{34}-17u^{32}+\cdots+8u-1)(u^{154}+u^{153}+\cdots+572u+49)$
c_7	$(u^{34}-8u^{32}+\cdots-u+1)(u^{154}+u^{153}+\cdots+1715u-2401)$
c_8	$(u^{34}+u^{33}+\cdots+4u^2+1)(u^{154}+7u^{152}+\cdots+1316u+187)$
c_9	$(u^{34}+4u^{32}+\cdots+4u+1)(u^{154}-3u^{153}+\cdots+1930u-83)$
c_{10}	$(u^{34}-12u^{33}+\cdots-56u+4)$ $\cdot(u^{154}-7u^{153}+\cdots+13536812u-792892)$
c_{11}	$(u^{34}-17u^{32}+\cdots-8u-1)(u^{154}+u^{153}+\cdots+572u+49)$
c_{12}	$(u^{34}+3u^{33}+\cdots-8u-1)$ $\cdot(u^{154}-6u^{153}+\cdots-118592654u-10006731)$

IV. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$(y^{34}-13y^{33}+\cdots-4y+1)(y^{154}+4y^{153}+\cdots-96y+1)$
c_2, c_7	$(y^{34}-16y^{33}+\cdots-31y+1)$ $\cdot(y^{154}-87y^{153}+\cdots+38235925y+5764801)$
c_3	$(y^{34}-4y^{33}+\cdots+21y+1)$ $\cdot(y^{154}+33y^{153}+\cdots+26474687753y+932874849)$
c_4	$(y^{34}+2y^{33}+\cdots-22y+1)(y^{154}+19y^{153}+\cdots-5.41478\times10^{7}y+1681)$
c_5, c_6, c_{11}	$(y^{34}-34y^{33}+\cdots-32y+1)(y^{154}-137y^{153}+\cdots+38356y+2401)$
c_8	$(y^{34}+21y^{33}+\cdots+8y+1)(y^{154}+14y^{153}+\cdots-2877044y+34969)$
c_9	$(y^{34}+8y^{33}+\cdots+4y+1)(y^{154}+y^{153}+\cdots-2295640y+6889)$
c_{10}	$(y^{34}+4y^{33}+\cdots+80y+16)$ $\cdot(y^{154}-27y^{153}+\cdots-308019410590464y+628677723664)$
c_{12}	$(y^{34}-9y^{33}+\cdots-28y+1)$ $\cdot(y^{154}+28y^{153}+\cdots+1260521920984700y+100134665306361)$