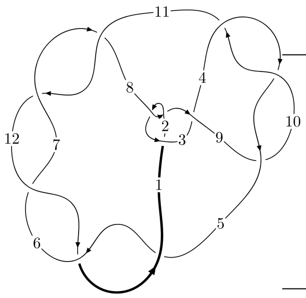
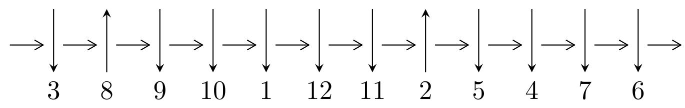
$12a_{0735}$ ($K12a_{0735}$)



A knot diagram[1]

Linearized knot diagam



Solving Sequence

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

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

$$\begin{aligned}
I_1^u &= \langle 2u^{37} + 2u^{36} + \cdots + 4b + 2,\ -u^{36} - 23u^{34} + \cdots + 4a - 2,\ u^{38} + 2u^{37} + \cdots + 5u + 2\rangle \\
I_2^u &= \langle 2u^4a - 2u^3a + a^2u + 5u^2a - 4au + b + a + 2u - 2, \\
&\quad 2u^4a^2 - u^4a + 6a^2u^2 + 2u^3a - 3u^4 + a^3 - 5u^2a + u^3 + 2a^2 + 7au - 10u^2 - 2a + 3u - 5, \\
&\quad u^5 - u^4 + 4u^3 - 3u^2 + 3u - 1\rangle \\
I_3^u &= \langle u^3 + b + 2u,\ -u^3 - u^2 + a - 2u - 2,\ u^4 + 3u^2 + 1\rangle
\end{aligned}$$

* 3 irreducible components of $\dim_{\mathbb{C}} = 0$, with total 57 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. $\boldsymbol{I_1^u =}$
$\boldsymbol{\langle 2u^{37}+2u^{36}+\cdots+4b+2,\ -u^{36}-23u^{34}+\cdots+4a-2,\ u^{38}+2u^{37}+\cdots+5u+2\rangle}$

(i) Arc colorings

$$a_1 = \begin{pmatrix} 0 \\ u \end{pmatrix}$$
$$a_5 = \begin{pmatrix} 1 \\ 0 \end{pmatrix}$$
$$a_6 = \begin{pmatrix} 1 \\ u^2 \end{pmatrix}$$
$$a_{10} = \begin{pmatrix} \frac{1}{4}u^{36} + \frac{23}{4}u^{34} + \cdots + \frac{5}{2}u + \frac{1}{2} \\ -\frac{1}{2}u^{37} - \frac{1}{2}u^{36} + \cdots - \frac{1}{4}u - \frac{1}{2} \end{pmatrix}$$
$$a_4 = \begin{pmatrix} \frac{1}{4}u^{33} + 5u^{31} + \cdots - \frac{1}{4}u + 1 \\ -\frac{1}{4}u^{33} - \frac{21}{4}u^{31} + \cdots - \frac{1}{2}u^2 - \frac{1}{2}u \end{pmatrix}$$
$$a_{11} = \begin{pmatrix} u^3 + 2u \\ u^5 + 3u^3 + u \end{pmatrix}$$
$$a_9 = \begin{pmatrix} -\frac{1}{2}u^{37} - \frac{1}{4}u^{36} + \cdots + \frac{1}{4}u^2 + \frac{9}{4}u \\ -\frac{1}{2}u^{37} - \frac{1}{2}u^{36} + \cdots - \frac{1}{4}u - \frac{1}{2} \end{pmatrix}$$
$$a_3 = \begin{pmatrix} -\frac{1}{2}u^{37} - u^{36} + \cdots - \frac{15}{4}u - 2 \\ -\frac{3}{4}u^{33} - \frac{3}{4}u^{32} + \cdots - \frac{1}{2}u - 1 \end{pmatrix}$$
$$a_2 = \begin{pmatrix} \frac{1}{4}u^{32} + \frac{21}{4}u^{30} + \cdots - \frac{1}{2}u - \frac{1}{2} \\ \frac{1}{4}u^{32} + 5u^{30} + \cdots + \frac{5}{4}u^2 + u \end{pmatrix}$$
$$a_8 = \begin{pmatrix} u^4 + 3u^2 + 1 \\ u^6 + 4u^4 + 3u^2 \end{pmatrix}$$
$$a_{12} = \begin{pmatrix} u \\ u^3 + u \end{pmatrix}$$
$$a_7 = \begin{pmatrix} u^2 + 1 \\ u^4 + 2u^2 \end{pmatrix}$$

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -2u^{37} - 4u^{36} + \cdots - 4u - 14$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{38} + 17u^{37} + \cdots + 194u + 25$
c_2, c_8	$u^{38} - u^{37} + \cdots - 6u + 5$
c_3	$u^{38} - 2u^{37} + \cdots + 400u + 800$
c_4, c_9, c_{10}	$u^{38} - u^{37} + \cdots - 4u + 5$
c_5, c_6, c_7 c_{11}, c_{12}	$u^{38} - 2u^{37} + \cdots - 5u + 2$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{38} + 13y^{37} + \cdots + 8514y + 625$
c_2, c_8	$y^{38} + 17y^{37} + \cdots + 194y + 25$
c_3	$y^{38} - 6y^{37} + \cdots + 7276800y + 640000$
c_4, c_9, c_{10}	$y^{38} + 37y^{37} + \cdots + 34y + 25$
c_5, c_6, c_7 c_{11}, c_{12}	$y^{38} + 48y^{37} + \cdots + 19y + 4$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.339832 + 0.921512I$ $a = 0.416428 + 0.809179I$ $b = 0.816368 - 0.218889I$	$-0.53116 + 6.72152I$	$-6.76982 - 7.69269I$
$u = -0.339832 - 0.921512I$ $a = 0.416428 - 0.809179I$ $b = 0.816368 + 0.218889I$	$-0.53116 - 6.72152I$	$-6.76982 + 7.69269I$
$u = -0.325570 + 0.993591I$ $a = -1.55595 - 1.85235I$ $b = -0.257004 + 1.389260I$	$7.06845 + 5.49844I$	$0.54907 - 4.52833I$
$u = -0.325570 - 0.993591I$ $a = -1.55595 + 1.85235I$ $b = -0.257004 - 1.389260I$	$7.06845 - 5.49844I$	$0.54907 + 4.52833I$
$u = 0.394709 + 0.970581I$ $a = 1.66954 - 1.57123I$ $b = 0.33472 + 1.39633I$	$4.59569 - 10.87090I$	$-2.77827 + 8.43141I$
$u = 0.394709 - 0.970581I$ $a = 1.66954 + 1.57123I$ $b = 0.33472 - 1.39633I$	$4.59569 + 10.87090I$	$-2.77827 - 8.43141I$
$u = -0.009913 + 0.916024I$ $a = -0.106232 + 0.617839I$ $b = -0.435699 - 0.647770I$	$2.92919 - 1.46585I$	$-0.29190 + 4.46440I$
$u = -0.009913 - 0.916024I$ $a = -0.106232 - 0.617839I$ $b = -0.435699 + 0.647770I$	$2.92919 + 1.46585I$	$-0.29190 - 4.46440I$
$u = -0.091063 + 1.155310I$ $a = -0.37132 - 2.12708I$ $b = -0.03930 + 1.42339I$	$9.62190 + 2.62526I$	$1.76254 - 3.39036I$
$u = -0.091063 - 1.155310I$ $a = -0.37132 + 2.12708I$ $b = -0.03930 - 1.42339I$	$9.62190 - 2.62526I$	$1.76254 + 3.39036I$

Solutions to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.475449 + 0.649846I$ $a = -0.634708 + 0.373029I$ $b = 0.237413 - 1.333010I$	$2.66568 + 3.67725I$	$-3.88495 - 1.85217I$
$u = 0.475449 - 0.649846I$ $a = -0.634708 - 0.373029I$ $b = 0.237413 + 1.333010I$	$2.66568 - 3.67725I$	$-3.88495 + 1.85217I$
$u = -0.326550 + 0.707311I$ $a = 0.365685 + 0.985287I$ $b = 0.598316 + 0.079539I$	$-1.81820 - 0.62723I$	$-9.78117 - 0.63046I$
$u = -0.326550 - 0.707311I$ $a = 0.365685 - 0.985287I$ $b = 0.598316 - 0.079539I$	$-1.81820 + 0.62723I$	$-9.78117 + 0.63046I$
$u = -0.453897 + 0.489215I$ $a = 0.911640 + 0.461033I$ $b = -0.076008 - 1.314890I$	$4.18206 + 0.81384I$	$-1.66334 - 4.28381I$
$u = -0.453897 - 0.489215I$ $a = 0.911640 - 0.461033I$ $b = -0.076008 + 1.314890I$	$4.18206 - 0.81384I$	$-1.66334 + 4.28381I$
$u = 0.634985 + 0.149850I$ $a = -1.313290 - 0.234988I$ $b = -0.296893 - 1.359070I$	$1.15622 - 7.39365I$	$-7.23665 + 6.75615I$
$u = 0.634985 - 0.149850I$ $a = -1.313290 + 0.234988I$ $b = -0.296893 + 1.359070I$	$1.15622 + 7.39365I$	$-7.23665 - 6.75615I$
$u = -0.551325 + 0.214770I$ $a = 1.406100 - 0.007220I$ $b = 0.191390 - 1.321750I$	$3.34928 + 2.52485I$	$-4.06452 - 3.23642I$
$u = -0.551325 - 0.214770I$ $a = 1.406100 + 0.007220I$ $b = 0.191390 + 1.321750I$	$3.34928 - 2.52485I$	$-4.06452 + 3.23642I$

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.556094+0.096366I$ $a=-1.338990+0.086931I$ $b=-0.729346+0.157605I$	$-3.64092+3.67836I$	$-13.1775-5.2178I$
$u=-0.556094-0.096366I$ $a=-1.338990-0.086931I$ $b=-0.729346-0.157605I$	$-3.64092-3.67836I$	$-13.1775+5.2178I$
$u=\ \ 0.06495+1.55948I$ $a=\ \ 0.124474-1.120870I$ $b=-0.146346+1.269640I$	$9.94200+1.81077I$	0
$u=\ \ 0.06495-1.55948I$ $a=\ \ 0.124474+1.120870I$ $b=-0.146346-1.269640I$	$9.94200-1.81077I$	0
$u=\ \ 0.232971+0.274282I$ $a=\ \ 0.783127+0.921776I$ $b=\ \ 0.170162+0.354512I$	$-0.605257-0.910546I$	$-10.00383+7.24439I$
$u=\ \ 0.232971-0.274282I$ $a=\ \ 0.783127-0.921776I$ $b=\ \ 0.170162-0.354512I$	$-0.605257+0.910546I$	$-10.00383-7.24439I$
$u=-0.05271+1.63939I$ $a=-0.104717-0.802437I$ $b=-0.537806+0.097751I$	$6.35089+0.56961I$	0
$u=-0.05271-1.63939I$ $a=-0.104717+0.802437I$ $b=-0.537806-0.097751I$	$6.35089-0.56961I$	0
$u=-0.01436+1.69488I$ $a=-0.095169-0.847455I$ $b=\ \ 0.572206+0.761360I$	$12.20970-1.29201I$	0
$u=-0.01436-1.69488I$ $a=-0.095169+0.847455I$ $b=\ \ 0.572206-0.761360I$	$12.20970+1.29201I$	0

Solutions to I_1^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u=-0.08704+1.69484I$ $a=-0.001733-0.692432I$ $b=-0.884556+0.249985I$	$8.67383+8.38204I$	0
$u=-0.08704-1.69484I$ $a=-0.001733+0.692432I$ $b=-0.884556-0.249985I$	$8.67383-8.38204I$	0
$u=0.10617+1.70777I$ $a=-1.09920+1.99516I$ $b=-0.36348-1.42519I$	$14.0039-12.8731I$	0
$u=0.10617-1.70777I$ $a=-1.09920-1.99516I$ $b=-0.36348+1.42519I$	$14.0039+12.8731I$	0
$u=-0.08545+1.71485I$ $a=1.00730+2.20606I$ $b=0.29380-1.43752I$	$16.6465+7.1508I$	0
$u=-0.08545-1.71485I$ $a=1.00730-2.20606I$ $b=0.29380+1.43752I$	$16.6465-7.1508I$	0
$u=-0.01542+1.74340I$ $a=0.18700+2.55613I$ $b=0.05206-1.51390I$	$-19.4879+3.0073I$	0
$u=-0.01542-1.74340I$ $a=0.18700-2.55613I$ $b=0.05206+1.51390I$	$-19.4879-3.0073I$	0

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

(i) Arc colorings

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

(ii) Obstruction class $= -1$

(iii) Cusp Shapes $= -4u^4 + 4u^3 - 16u^2 + 12u - 14$

(iv) u-Polynomials at the component

Crossings	u-Polynomials at each crossing
c_1	$u^{15}+10u^{14}+\cdots+3u-1$
c_2, c_4, c_8 c_9, c_{10}	$u^{15}+5u^{13}+\cdots+u+1$
c_3	$(u^5+u^4-u^2+u+1)^3$
c_5, c_6, c_7 c_{11}, c_{12}	$(u^5+u^4+4u^3+3u^2+3u+1)^3$

(v) Riley Polynomials at the component

Crossings	Riley Polynomials at each crossing
c_1	$y^{15} - 10y^{14} + \cdots + 15y - 1$
c_2, c_4, c_8 c_9, c_{10}	$y^{15} + 10y^{14} + \cdots + 3y - 1$
c_3	$(y^5 - y^4 + 4y^3 - 3y^2 + 3y - 1)^3$
c_5, c_6, c_7 c_{11}, c_{12}	$(y^5 + 7y^4 + 16y^3 + 13y^2 + 3y - 1)^3$

(vi) Complex Volumes and Cusp Shapes

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.233677 + 0.885557I$ $a = -0.323874 + 0.796296I$ $b = -0.638808 - 0.271585I$	$1.81981 - 2.21397I$	$-3.11432 + 4.22289I$
$u = 0.233677 + 0.885557I$ $a = -0.156756 + 0.463494I$ $b = 0.435133 - 0.988544I$	$1.81981 - 2.21397I$	$-3.11432 + 4.22289I$
$u = 0.233677 + 0.885557I$ $a = 2.13619 - 2.53516I$ $b = 0.203675 + 1.260130I$	$1.81981 - 2.21397I$	$-3.11432 + 4.22289I$
$u = 0.233677 - 0.885557I$ $a = -0.323874 - 0.796296I$ $b = -0.638808 + 0.271585I$	$1.81981 + 2.21397I$	$-3.11432 - 4.22289I$
$u = 0.233677 - 0.885557I$ $a = -0.156756 - 0.463494I$ $b = 0.435133 + 0.988544I$	$1.81981 + 2.21397I$	$-3.11432 - 4.22289I$
$u = 0.233677 - 0.885557I$ $a = 2.13619 + 2.53516I$ $b = 0.203675 - 1.260130I$	$1.81981 + 2.21397I$	$-3.11432 - 4.22289I$
$u = 0.416284$ $a = 1.12253$ $b = 0.511430$	-0.882183	-11.6090
$u = 0.416284$ $a = -2.11117 + 0.66665I$ $b = -0.255715 + 1.093700I$	-0.882183	-11.6090
$u = 0.416284$ $a = -2.11117 - 0.66665I$ $b = -0.255715 - 1.093700I$	-0.882183	-11.6090
$u = 0.05818 + 1.69128I$ $a = 0.154896 - 0.889970I$ $b = -0.549193 + 1.000850I$	$10.95830 - 3.33174I$	$-2.08126 + 2.36228I$

Solutions to I_2^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.05818 + 1.69128I$ $a = -0.007493 - 0.744869I$ $b = 0.762735 + 0.344098I$	$10.95830 - 3.33174I$	$-2.08126 + 2.36228I$
$u = 0.05818 + 1.69128I$ $a = -1.25306 + 2.70311I$ $b = -0.213543 - 1.344950I$	$10.95830 - 3.33174I$	$-2.08126 + 2.36228I$
$u = 0.05818 - 1.69128I$ $a = 0.154896 + 0.889970I$ $b = -0.549193 - 1.000850I$	$10.95830 + 3.33174I$	$-2.08126 - 2.36228I$
$u = 0.05818 - 1.69128I$ $a = -0.007493 + 0.744869I$ $b = 0.762735 - 0.344098I$	$10.95830 + 3.33174I$	$-2.08126 - 2.36228I$
$u = 0.05818 - 1.69128I$ $a = -1.25306 - 2.70311I$ $b = -0.213543 + 1.344950I$	$10.95830 + 3.33174I$	$-2.08126 - 2.36228I$

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

(i) Arc colorings

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

(ii) Obstruction class $= 1$

(iii) Cusp Shapes $= -4$

(iv) u-Polynomials at the component

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

(v) Riley Polynomials at the component

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

(vi) Complex Volumes and Cusp Shapes

Solutions to I_3^u	$\sqrt{-1}(\mathrm{vol}+\sqrt{-1}CS)$	Cusp shape
$u = 0.618034I$ $a = 1.61803 + 1.00000I$ $b = -1.000000I$	0.986960	−4.00000
$u = -0.618034I$ $a = 1.61803 - 1.00000I$ $b = 1.000000I$	0.986960	−4.00000
$u = 1.61803I$ $a = -0.618034 - 1.000000I$ $b = 1.000000I$	8.88264	−4.00000
$u = -1.61803I$ $a = -0.618034 + 1.000000I$ $b = -1.000000I$	8.88264	−4.00000

IV. u-Polynomials

Crossings	u-Polynomials at each crossing
c_1	$((u-1)^4)(u^{15}+10u^{14}+\cdots+3u-1)(u^{38}+17u^{37}+\cdots+194u+25)$
c_2, c_8	$((u^2+1)^2)(u^{15}+5u^{13}+\cdots+u+1)(u^{38}-u^{37}+\cdots-6u+5)$
c_3	$u^4(u^5+u^4-u^2+u+1)^3(u^{38}-2u^{37}+\cdots+400u+800)$
c_4, c_9, c_{10}	$((u^2+1)^2)(u^{15}+5u^{13}+\cdots+u+1)(u^{38}-u^{37}+\cdots-4u+5)$
c_5, c_6, c_7 c_{11}, c_{12}	$(u^4+3u^2+1)(u^5+u^4+\cdots+3u+1)^3(u^{38}-2u^{37}+\cdots-5u+2)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossing
c_1	$((y-1)^4)(y^{15}-10y^{14}+\cdots+15y-1)$ $\cdot(y^{38}+13y^{37}+\cdots+8514y+625)$
c_2, c_8	$((y+1)^4)(y^{15}+10y^{14}+\cdots+3y-1)(y^{38}+17y^{37}+\cdots+194y+25)$
c_3	$y^4(y^5-y^4+4y^3-3y^2+3y-1)^3$ $\cdot(y^{38}-6y^{37}+\cdots+7276800y+640000)$
c_4, c_9, c_{10}	$((y+1)^4)(y^{15}+10y^{14}+\cdots+3y-1)(y^{38}+37y^{37}+\cdots+34y+25)$
c_5, c_6, c_7 c_{11}, c_{12}	$(y^2+3y+1)^2(y^5+7y^4+16y^3+13y^2+3y-1)^3$ $\cdot(y^{38}+48y^{37}+\cdots+19y+4)$