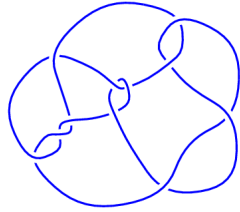
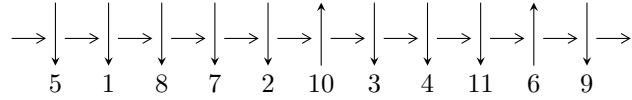


11a₁₀₅ (K11a₁₀₅)

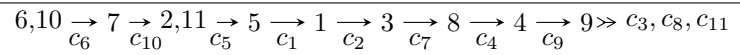


1

Arc Sequences



Solving Sequence



Representation Ideals

$$I = \bigcap_{i=1}^3 I_i^u$$

$$I_1^u = \langle b^2 + 3, u - 1, -b + 2a - 1 \rangle$$

$$I_2^u = \langle b^4 + 8b^2 - 12b + 7, u + 1, -2b^3 - b^2 - 20b + 14a + 7 \rangle$$

$$I_3^u = \langle u^{60} - 3u^{59} + \dots + 21u - 7, \\ -6.43589 \times 10^{39}u^{59} + 2.48789 \times 10^{40}u^{58} + \dots + 1.77522 \times 10^{40}b - 1.24542 \times 10^{41}, \\ -2.47142 \times 10^{41}u^{59} + 6.35003 \times 10^{41}u^{58} + \dots + 2.48531 \times 10^{41}a - 2.34972 \times 10^{42} \rangle$$

There are 3 irreducible components with 66 representations.

¹The knot diagram image is adapter from “C. Livingston and A. H. Moore, KnotInfo: Table of Knot Invariants, <http://www.indiana.edu/~knotinfo>”

$$\text{I. } I_1^u = \langle b^2 + 3, u - 1, -b + 2a - 1 \rangle$$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 0 \\ 1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} \frac{1}{2}b + \frac{1}{2} \\ b \end{pmatrix}$$

$$a_7 = \begin{pmatrix} \frac{1}{2}b - \frac{1}{2} \\ \frac{1}{2}b - \frac{1}{2} \end{pmatrix}$$

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

$$a_{11} = \begin{pmatrix} \frac{1}{2}b + \frac{1}{2} \\ \frac{1}{2}b - \frac{1}{2} \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} \frac{1}{2}b - \frac{1}{2} \\ \frac{1}{2}b - \frac{1}{2} \end{pmatrix}$$

$$a_4 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} \frac{1}{2}b - \frac{1}{2} \\ \frac{1}{2}b - \frac{1}{2} \end{pmatrix}$$

$$a_9 = \begin{pmatrix} \frac{1}{2}b - \frac{1}{2} \\ \frac{1}{2}b - \frac{1}{2} \end{pmatrix}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes = unknown

(iv) Complex Volumes and Cusp Shapes

Solution to I_1^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.00000$		
$a = 0.500000 - 0.866025I$	$-1.64493 - 2.02988I$	$-12.00000 + 3.46410I$
$b = -1.73205I$		
$u = 1.00000$		
$a = 0.500000 + 0.866025I$	$-1.64493 + 2.02988I$	$-12.00000 - 3.46410I$
$b = 1.73205I$		

$$\text{II. } I_2^u = \langle b^4 + 8b^2 - 12b + 7, u + 1, -2b^3 - b^2 - 20b + 14a + 7 \rangle$$

(i) Arc colorings

$$a_6 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$

$$a_{10} = \begin{pmatrix} \frac{1}{7}b^3 + \frac{1}{14}b^2 + \frac{10}{7}b - \frac{1}{2} \\ b \end{pmatrix}$$

$$a_7 = \begin{pmatrix} -\frac{1}{7}b^3 - \frac{1}{14}b^2 - \frac{10}{7}b + \frac{3}{2} \\ -\frac{1}{14}b^3 - \frac{2}{7}b^2 - \frac{17}{14}b \end{pmatrix}$$

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

$$a_{11} = \begin{pmatrix} \frac{1}{7}b^3 + \frac{1}{14}b^2 + \frac{10}{7}b - \frac{1}{2} \\ -\frac{1}{7}b^3 - \frac{1}{14}b^2 - \frac{3}{7}b + \frac{1}{2} \end{pmatrix}$$

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

$$a_1 = \begin{pmatrix} 0 \\ -1 \end{pmatrix}$$

$$a_3 = \begin{pmatrix} 1 \\ 1 \end{pmatrix}$$

$$a_8 = \begin{pmatrix} -\frac{3}{14}b^3 + \frac{1}{7}b^2 - \frac{23}{14}b + 3 \\ -\frac{1}{7}b^3 - \frac{1}{14}b^2 - \frac{10}{7}b + \frac{3}{2} \end{pmatrix}$$

$$a_4 = \begin{pmatrix} \frac{2}{7}b^3 + \frac{1}{7}b^2 + \frac{13}{7}b - 3 \\ \frac{2}{7}b^3 + \frac{1}{7}b^2 + \frac{13}{7}b - 1 \end{pmatrix}$$

$$a_9 = \begin{pmatrix} \frac{1}{7}b^3 + \frac{1}{14}b^2 + \frac{10}{7}b - \frac{3}{2} \\ \frac{1}{14}b^3 + \frac{2}{7}b^2 + \frac{17}{14}b \end{pmatrix}$$

$$a_9 = \begin{pmatrix} \frac{1}{7}b^3 + \frac{1}{14}b^2 + \frac{10}{7}b - \frac{3}{2} \\ \frac{1}{14}b^3 + \frac{2}{7}b^2 + \frac{17}{14}b \end{pmatrix}$$

(ii) Obstruction class = 1

(iii) Cusp Shapes = unknown

(iv) Complex Volumes and Cusp Shapes

Solution to I_2^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.00000$ $a = 0.500000 - 0.866025I$ $b = -0.70711 - 2.95680I$	$-6.57974 - 2.02988I$	$-14.0000 + 3.4641I$
$u = -1.00000$ $a = 0.500000 + 0.866025I$ $b = -0.70711 + 2.95680I$	$-6.57974 + 2.02988I$	$-14.0000 - 3.4641I$
$u = -1.00000$ $a = 0.500000 - 0.866025I$ $b = 0.707107 - 0.507306I$	$-6.57974 - 2.02988I$	$-14.0000 + 3.4641I$
$u = -1.00000$ $a = 0.500000 + 0.866025I$ $b = 0.707107 + 0.507306I$	$-6.57974 + 2.02988I$	$-14.0000 - 3.4641I$

$$\text{III. } I_3^u = \langle u^{60} - 3u^{59} + \dots + 21u - 7, -6.44 \times 10^{39}u^{59} + 2.49 \times 10^{40}u^{58} + \dots + 1.78 \times 10^{40}b - 1.25 \times 10^{41}, -2.47 \times 10^{41}u^{59} + 6.35 \times 10^{41}u^{58} + \dots + 2.49 \times 10^{41}a - 2.35 \times 10^{42} \rangle$$

(i) Arc colorings

$$\begin{aligned} a_6 &= \begin{pmatrix} 0 \\ u \end{pmatrix} \\ a_{10} &= \begin{pmatrix} 0.994410u^{59} - 2.55503u^{58} + \dots - 17.4394u + 9.45445 \\ 0.362540u^{59} - 1.40146u^{58} + \dots - 7.86938u + 7.01560 \end{pmatrix} \\ a_7 &= \begin{pmatrix} 1.06125u^{59} - 2.50007u^{58} + \dots - 20.1941u + 7.76488 \\ 0.651232u^{59} - 2.01822u^{58} + \dots - 20.3655u + 9.70043 \end{pmatrix} \\ a_2 &= \begin{pmatrix} 1 \\ 0 \end{pmatrix} \\ a_{11} &= \begin{pmatrix} 0.994410u^{59} - 2.55503u^{58} + \dots - 17.4394u + 9.45445 \\ 0.191871u^{59} - 0.602944u^{58} + \dots - 5.83801u + 4.01818 \end{pmatrix} \\ a_5 &= \begin{pmatrix} u \\ u \end{pmatrix} \\ a_1 &= \begin{pmatrix} -u^2 + 1 \\ -u^2 \end{pmatrix} \\ a_3 &= \begin{pmatrix} u^4 - u^2 + 1 \\ u^4 \end{pmatrix} \\ a_8 &= \begin{pmatrix} 0.566075u^{59} - 1.42260u^{58} + \dots - 12.5903u + 5.71363 \\ 0.216345u^{59} - 0.690772u^{58} + \dots - 13.3174u + 5.05879 \end{pmatrix} \\ a_4 &= \begin{pmatrix} -0.744371u^{59} + 1.60465u^{58} + \dots + 9.80223u - 2.87102 \\ -0.448078u^{59} + 0.990722u^{58} + \dots + 12.9912u - 5.15193 \end{pmatrix} \\ a_9 &= \begin{pmatrix} 1.02208u^{59} - 2.55712u^{58} + \dots - 12.3772u + 4.86255 \\ 0.319988u^{59} - 1.00416u^{58} + \dots - 7.81617u + 3.55546 \end{pmatrix} \\ a_9 &= \begin{pmatrix} 1.02208u^{59} - 2.55712u^{58} + \dots - 12.3772u + 4.86255 \\ 0.319988u^{59} - 1.00416u^{58} + \dots - 7.81617u + 3.55546 \end{pmatrix} \end{aligned}$$

(ii) Obstruction class = -1

(iii) Cusp Shapes = unknown

(iv) Complex Volumes and Cusp Shapes

Solution to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.320757 - 0.205502I$ $a = 0.619276 + 0.630701I$ $b = 0.12233 + 2.18494I$	$-5.17207 + 5.38877I$	$-10.83258 - 5.37229I$
$u = -1.320757 + 0.205502I$ $a = 0.619276 - 0.630701I$ $b = 0.12233 - 2.18494I$	$-5.17207 - 5.38877I$	$-10.83258 + 5.37229I$
$u = -1.300509 - 0.144765I$ $a = 0.478279 - 0.620867I$ $b = 0.45795 - 1.69288I$	$-4.50001 + 0.00587I$	$-9.31111 + 0.04682I$
$u = -1.300509 + 0.144765I$ $a = 0.478279 + 0.620867I$ $b = 0.45795 + 1.69288I$	$-4.50001 - 0.00587I$	$-9.31111 - 0.04682I$
$u = -1.155383 - 0.302844I$ $a = -0.226223 - 0.770277I$ $b = -0.80482 - 3.05338I$	$-9.46417 + 0.48874I$	$-17.2760 + 0.2502I$
$u = -1.155383 + 0.302844I$ $a = -0.226223 + 0.770277I$ $b = -0.80482 + 3.05338I$	$-9.46417 - 0.48874I$	$-17.2760 - 0.2502I$
$u = -1.113253 - 0.659114I$ $a = -0.093338 + 0.967839I$ $b = 0.22168 + 2.82273I$	$3.49971 - 10.62978I$	$-5.43356 + 8.51745I$
$u = -1.113253 + 0.659114I$ $a = -0.093338 - 0.967839I$ $b = 0.22168 - 2.82273I$	$3.49971 + 10.62978I$	$-5.43356 - 8.51745I$
$u = -1.06263$ $a = -0.126845$ $b = -1.24936$	-6.53287	-13.8274
$u = -1.060983 - 0.675223I$ $a = -0.865043 - 0.115165I$ $b = -0.689767 - 0.011031I$	$4.44819 - 4.71708I$	$-3.57538 + 3.65619I$

Solution to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -1.060983 + 0.675223I$ $a = -0.865043 + 0.115165I$ $b = -0.689767 + 0.011031I$	$4.44819 + 4.71708I$	$-3.57538 - 3.65619I$
$u = -1.022998 - 0.489392I$ $a = -0.257785 - 0.919008I$ $b = 0.26327 - 2.68098I$	$-2.44529 - 4.90792I$	$-9.88732 + 7.39777I$
$u = -1.022998 + 0.489392I$ $a = -0.257785 + 0.919008I$ $b = 0.26327 + 2.68098I$	$-2.44529 + 4.90792I$	$-9.88732 - 7.39777I$
$u = -0.941117 - 0.451694I$ $a = -0.185820 + 1.086741I$ $b = 1.61582 + 2.43232I$	$-5.76976 - 4.33338I$	$-9.97259 + 6.58547I$
$u = -0.941117 + 0.451694I$ $a = -0.185820 - 1.086741I$ $b = 1.61582 - 2.43232I$	$-5.76976 + 4.33338I$	$-9.97259 - 6.58547I$
$u = -0.830904 - 0.548607I$ $a = 0.485386 - 0.478460I$ $b = 0.312801 - 0.385964I$	$1.43580 - 2.21650I$	$-1.82720 + 4.33305I$
$u = -0.830904 + 0.548607I$ $a = 0.485386 + 0.478460I$ $b = 0.312801 + 0.385964I$	$1.43580 + 2.21650I$	$-1.82720 - 4.33305I$
$u = -0.817597 - 0.385146I$ $a = -1.021270 - 0.460374I$ $b = -0.503582 + 1.287391I$	$-5.24444 + 0.82507I$	$-7.85626 + 0.93075I$
$u = -0.817597 + 0.385146I$ $a = -1.021270 + 0.460374I$ $b = -0.503582 - 1.287391I$	$-5.24444 - 0.82507I$	$-7.85626 - 0.93075I$
$u = -0.777510 - 0.260414I$ $a = 0.906790 + 0.961024I$ $b = -0.25993 + 1.59965I$	$-0.97414 + 1.49816I$	$-3.90867 + 1.16289I$

Solution to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = -0.777510 + 0.260414I$ $a = 0.906790 - 0.961024I$ $b = -0.25993 - 1.59965I$	$-0.97414 - 1.49816I$	$-3.90867 - 1.16289I$
$u = -0.554930 - 0.844693I$ $a = 0.208212 + 1.099597I$ $b = 0.119032 + 0.830093I$	$5.97615 - 0.93056I$	$-1.28101 + 1.70769I$
$u = -0.554930 + 0.844693I$ $a = 0.208212 - 1.099597I$ $b = 0.119032 - 0.830093I$	$5.97615 + 0.93056I$	$-1.28101 - 1.70769I$
$u = -0.471469 - 0.874189I$ $a = -1.213557 + 0.212738I$ $b = 0.673815 + 0.367636I$	$5.43709 + 4.96254I$	$-2.32735 - 3.96471I$
$u = -0.471469 + 0.874189I$ $a = -1.213557 - 0.212738I$ $b = 0.673815 - 0.367636I$	$5.43709 - 4.96254I$	$-2.32735 + 3.96471I$
$u = -0.109643 - 0.421807I$ $a = 1.84556 - 0.05068I$ $b = -0.211405 + 0.357357I$	$-0.480323 + 1.226229I$	$-5.70379 - 5.33805I$
$u = -0.109643 + 0.421807I$ $a = 1.84556 + 0.05068I$ $b = -0.211405 - 0.357357I$	$-0.480323 - 1.226229I$	$-5.70379 + 5.33805I$
$u = 0.279839 - 0.674741I$ $a = 1.41997 - 0.29559I$ $b = -0.912409 - 0.668316I$	$-5.42970 - 3.53470I$	$-11.54215 + 3.32475I$
$u = 0.279839 + 0.674741I$ $a = 1.41997 + 0.29559I$ $b = -0.912409 + 0.668316I$	$-5.42970 + 3.53470I$	$-11.54215 - 3.32475I$
$u = 0.345621 - 0.931256I$ $a = -1.209696 - 0.347101I$ $b = 0.902407 - 0.429008I$	$0.49565 - 9.00597I$	$-6.82163 + 5.73616I$

Solution to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.345621 + 0.931256I$ $a = -1.209696 + 0.347101I$ $b = 0.902407 + 0.429008I$	$0.49565 + 9.00597I$	$-6.82163 - 5.73616I$
$u = 0.405880 - 0.900579I$ $a = 0.315982 - 1.064409I$ $b = 0.021567 - 0.520795I$	$1.38298 - 3.12184I$	$-5.31223 + 0.77570I$
$u = 0.405880 + 0.900579I$ $a = 0.315982 + 1.064409I$ $b = 0.021567 + 0.520795I$	$1.38298 + 3.12184I$	$-5.31223 - 0.77570I$
$u = 0.522890 - 0.628941I$ $a = 0.621289 + 0.528094I$ $b = 0.223230 + 0.089104I$	$-1.73220 - 0.82680I$	$-5.28912 + 0.30346I$
$u = 0.522890 + 0.628941I$ $a = 0.621289 - 0.528094I$ $b = 0.223230 - 0.089104I$	$-1.73220 + 0.82680I$	$-5.28912 - 0.30346I$
$u = 0.593690 - 0.422831I$ $a = -0.35349 + 1.46205I$ $b = 0.56513 + 1.72136I$	$-4.34425 + 2.84333I$	$-9.95521 - 5.23413I$
$u = 0.593690 + 0.422831I$ $a = -0.35349 - 1.46205I$ $b = 0.56513 - 1.72136I$	$-4.34425 - 2.84333I$	$-9.95521 + 5.23413I$
$u = 0.639184 - 0.777014I$ $a = -1.169897 - 0.028862I$ $b = 0.306591 - 0.357065I$	$2.99290 - 0.67802I$	$-5.10957 - 0.77224I$
$u = 0.639184 + 0.777014I$ $a = -1.169897 + 0.028862I$ $b = 0.306591 + 0.357065I$	$2.99290 + 0.67802I$	$-5.10957 + 0.77224I$
$u = 0.715279$ $a = 0.440354$ $b = -0.256175$	-0.965483	-10.6884

Solution to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 0.729836 - 0.775536I$	$3.09128 + 5.18590I$	$-5.18240 - 6.17789I$
$a = 0.079889 - 1.094938I$		
$b = 0.270678 - 1.310661I$		
$u = 0.729836 + 0.775536I$	$3.09128 - 5.18590I$	$-5.18240 + 6.17789I$
$a = 0.079889 + 1.094938I$		
$b = 0.270678 + 1.310661I$		
$u = 0.917228 - 0.667647I$	$2.51877 + 0.25684I$	$-5.58857 + 0.91280I$
$a = -0.964860 + 0.133700I$		
$b = -0.403597 - 0.249253I$		
$u = 0.917228 + 0.667647I$	$2.51877 - 0.25684I$	$-5.58857 - 0.91280I$
$a = -0.964860 - 0.133700I$		
$b = -0.403597 + 0.249253I$		
$u = 0.974987 - 0.480425I$	$-5.48660 + 1.01058I$	$-11.53762 - 1.86064I$
$a = 0.860811 - 0.672790I$		
$b = -0.50977 - 1.93001I$		
$u = 0.974987 + 0.480425I$	$-5.48660 - 1.01058I$	$-11.53762 + 1.86064I$
$a = 0.860811 + 0.672790I$		
$b = -0.50977 + 1.93001I$		
$u = 0.999291 - 0.644525I$	$1.89650 + 6.03755I$	$-6.88192 - 4.20349I$
$a = -0.080439 - 1.021185I$		
$b = 0.51333 - 2.41201I$		
$u = 0.999291 + 0.644525I$	$1.89650 - 6.03755I$	$-6.88192 + 4.20349I$
$a = -0.080439 + 1.021185I$		
$b = 0.51333 + 2.41201I$		
$u = 1.006624 - 0.578815I$	$-3.10541 + 5.57944I$	$-7.71109 - 5.72235I$
$a = 0.449668 + 0.513997I$		
$b = 0.517728 + 0.577658I$		
$u = 1.006624 + 0.578815I$	$-3.10541 - 5.57944I$	$-7.71109 + 5.72235I$
$a = 0.449668 - 0.513997I$		
$b = 0.517728 - 0.577658I$		

Solution to I_3^u	$\sqrt{-1}(\text{vol} + \sqrt{-1}CS)$	Cusp shape
$u = 1.047187 - 0.327214I$ $a = -0.139730 + 0.830080I$ $b = -0.38133 + 2.44105I$	$-3.41083 + 1.56394I$	$-13.77106 - 0.02572I$
$u = 1.047187 + 0.327214I$ $a = -0.139730 - 0.830080I$ $b = -0.38133 - 2.44105I$	$-3.41083 - 1.56394I$	$-13.77106 + 0.02572I$
$u = 1.110139 - 0.546001I$ $a = -0.299274 + 0.871945I$ $b = 0.38264 + 3.01818I$	$-7.75888 + 8.23897I$	$-14.2720 - 6.8415I$
$u = 1.110139 + 0.546001I$ $a = -0.299274 - 0.871945I$ $b = 0.38264 - 3.01818I$	$-7.75888 - 8.23897I$	$-14.2720 + 6.8415I$
$u = 1.147379 - 0.646788I$ $a = -0.811748 + 0.114505I$ $b = -0.897164 + 0.116577I$	$-0.85298 + 8.80531I$	$-7.88173 - 4.73751I$
$u = 1.147379 + 0.646788I$ $a = -0.811748 - 0.114505I$ $b = -0.897164 - 0.116577I$	$-0.85298 - 8.80531I$	$-7.88173 + 4.73751I$
$u = 1.182578 - 0.633551I$ $a = -0.111346 - 0.943059I$ $b = 0.13475 - 3.12728I$	$-2.0394 + 14.7170I$	$-9.75826 - 9.21510I$
$u = 1.182578 + 0.633551I$ $a = -0.111346 + 0.943059I$ $b = 0.13475 + 3.12728I$	$-2.0394 - 14.7170I$	$-9.75826 + 9.21510I$
$u = 1.248380 - 0.056280I$ $a = 0.555640 - 0.673415I$ $b = 0.20179 - 1.93547I$	$-0.69378 - 2.54574I$	$-3.93469 + 4.38996I$
$u = 1.248380 + 0.056280I$ $a = 0.555640 + 0.673415I$ $b = 0.20179 + 1.93547I$	$-0.69378 + 2.54574I$	$-3.93469 - 4.38996I$

IV. u-Polynomials

Crossings	u-Polynomials at each crossings
c_1	$(u - 1)^2(u + 1)^4(u^{60} + 3u^{59} + \dots - 21u - 7)$
c_2	$(u + 1)^6(u^{60} + 29u^{59} + \dots + 259u + 49)$
c_3, c_7, c_8	$u^2(u^2 - 2)^2(u^{60} + u^{59} + \dots - 4u - 4)$
c_4	$u^2(u^2 - 2)^2(u^{60} + 3u^{59} + \dots - 1892u + 748)$
c_5	$(u - 1)^4(u + 1)^2(u^{60} + 3u^{59} + \dots - 21u - 7)$
c_6	$(u^2 - u + 1)^2(u^2 + u + 1)(u^{60} + 2u^{59} + \dots - 10u + 1)$
c_9	$(u^2 - u + 1)^3(u^{60} + 20u^{59} + \dots - 58u + 1)$
c_{10}	$(u^2 - u + 1)(u^2 + u + 1)^2(u^{60} + 2u^{59} + \dots - 10u + 1)$
c_{11}	$(u^2 + u + 1)^3(u^{60} + 20u^{59} + \dots - 58u + 1)$

V. Riley Polynomials

Crossings	Riley Polynomials at each crossings
c_1, c_5	$(y - 1)^6(y^{60} - 29y^{59} + \dots - 259y + 49)$
c_2	$(y - 1)^6(y^{60} + 11y^{59} + \dots - 38171y + 2401)$
c_3, c_7, c_8	$y^2(y - 2)^4(y^{60} - 55y^{59} + \dots + 144y + 16)$
c_4	$y^2(y - 2)^4(y^{60} + 5y^{59} + \dots - 713328y + 559504)$
c_6, c_{10}	$(y^2 + y + 1)^3(y^{60} + 20y^{59} + \dots - 58y + 1)$
c_9, c_{11}	$(y^2 + y + 1)^3(y^{60} + 44y^{59} + \dots - 3138y + 1)$