

No. 20 D_{3d} $-31m$ (-31m setting) [trigonal] (axial)

表 1 rank 0	
No.	expression
1	1

表 2 rank 1	
No.	expression
2	Z
3	$-Y$
4	X

表 3 rank 2	
No.	expression
5	$-\frac{X^2}{2}-\frac{Y^2}{2}+Z^2$
6	$-\sqrt{3}YZ$
7	$\sqrt{3}XZ$
8	$\sqrt{3}XY$
9	$\frac{\sqrt{3}(X-Y)(X+Y)}{2}$

表 4 rank 3	
No.	expression
10	$\frac{\sqrt{10}Y(3X^2-Y^2)}{4}$
11	$-\frac{Z(3X^2+3Y^2-2Z^2)}{2}$
12	$\frac{\sqrt{10}X(X^2-3Y^2)}{4}$
13	$\frac{\sqrt{6}Y(X^2+Y^2-4Z^2)}{4}$
14	$-\frac{\sqrt{6}X(X^2+Y^2-4Z^2)}{4}$
15	$\sqrt{15}XYZ$
16	$\frac{\sqrt{15}Z(X-Y)(X+Y)}{2}$

表 5 rank 4

No.	expression
17	$\frac{3X^4}{8} + \frac{3X^2Y^2}{4} - 3X^2Z^2 + \frac{3Y^4}{8} - 3Y^2Z^2 + Z^4$
18	$\frac{\sqrt{70}XZ(X^2-3Y^2)}{4}$
19	$\frac{\sqrt{70}YZ(3X^2-Y^2)}{4}$
20	$\frac{\sqrt{10}YZ(3X^2+3Y^2-4Z^2)}{4}$
21	$-\frac{\sqrt{10}XZ(3X^2+3Y^2-4Z^2)}{4}$
22	$-\frac{\sqrt{35}XY(X-Y)(X+Y)}{2}$
23	$\frac{\sqrt{35}(X^2-2XY-Y^2)(X^2+2XY-Y^2)}{8}$
24	$-\frac{\sqrt{5}XY(X^2+Y^2-6Z^2)}{2}$
25	$-\frac{\sqrt{5}(X-Y)(X+Y)(X^2+Y^2-6Z^2)}{4}$

表 6 rank 5

No.	expression
26	$-\frac{\sqrt{70}Y(3X^2-Y^2)(X^2+Y^2-8Z^2)}{16}$
27	$\frac{Z(15X^4+30X^2Y^2-40X^2Z^2+15Y^4-40Y^2Z^2+8Z^4)}{8}$
28	$-\frac{\sqrt{70}X(X^2-3Y^2)(X^2+Y^2-8Z^2)}{16}$
29	$\frac{3\sqrt{14}Y(5X^4-10X^2Y^2+Y^4)}{16}$
30	$\frac{3\sqrt{14}X(X^4-10X^2Y^2+5Y^4)}{16}$
31	$-\frac{\sqrt{15}Y(X^4+2X^2Y^2-12X^2Z^2+Y^4-12Y^2Z^2+8Z^4)}{8}$
32	$\frac{\sqrt{15}X(X^4+2X^2Y^2-12X^2Z^2+Y^4-12Y^2Z^2+8Z^4)}{8}$
33	$-\frac{3\sqrt{35}XYZ(X-Y)(X+Y)}{2}$
34	$\frac{3\sqrt{35}Z(X^2-2XY-Y^2)(X^2+2XY-Y^2)}{8}$
35	$-\frac{\sqrt{105}XYZ(X^2+Y^2-2Z^2)}{2}$
36	$-\frac{\sqrt{105}Z(X-Y)(X+Y)(X^2+Y^2-2Z^2)}{4}$

表 7 rank 6

No.	expression
37	$-\frac{5X^6}{16} - \frac{15X^4Y^2}{16} + \frac{45X^4Z^2}{8} - \frac{15X^2Y^4}{16} + \frac{45X^2Y^2Z^2}{4} - \frac{15X^2Z^4}{2} - \frac{5Y^6}{16} + \frac{45Y^4Z^2}{8} - \frac{15Y^2Z^4}{2} + Z^6$
38	$\frac{\sqrt{462}(X-Y)(X+Y)(X^2-4XY+Y^2)(X^2+4XY+Y^2)}{32}$
39	$-\frac{\sqrt{210}XZ(X^2-3Y^2)(3X^2+3Y^2-8Z^2)}{16}$
40	$\frac{\sqrt{462}XY(X^2-3Y^2)(3X^2-Y^2)}{16}$
41	$-\frac{\sqrt{210}YZ(3X^2-Y^2)(3X^2+3Y^2-8Z^2)}{16}$
42	$\frac{3\sqrt{154}YZ(5X^4-10X^2Y^2+Y^4)}{16}$
43	$\frac{3\sqrt{154}XZ(X^4-10X^2Y^2+5Y^4)}{16}$
44	$-\frac{\sqrt{21}YZ(5X^4+10X^2Y^2-20X^2Z^2+5Y^4-20Y^2Z^2+8Z^4)}{8}$
45	$\frac{\sqrt{21}XZ(5X^4+10X^2Y^2-20X^2Z^2+5Y^4-20Y^2Z^2+8Z^4)}{8}$
46	$\frac{3\sqrt{7}XY(X-Y)(X+Y)(X^2+Y^2-10Z^2)}{4}$
47	$-\frac{3\sqrt{7}(X^2+Y^2-10Z^2)(X^2-2XY-Y^2)(X^2+2XY-Y^2)}{16}$
48	$\frac{\sqrt{210}XY(X^4+2X^2Y^2-16X^2Z^2+Y^4-16Y^2Z^2+16Z^4)}{16}$
49	$\frac{\sqrt{210}(X-Y)(X+Y)(X^4+2X^2Y^2-16X^2Z^2+Y^4-16Y^2Z^2+16Z^4)}{32}$

表 8 rank 7

No.	expression
50	$\frac{\sqrt{6006}XYZ(X^2-3Y^2)(3X^2-Y^2)}{16}$
51	$\frac{\sqrt{21}Y(3X^2-Y^2)(3X^4+6X^2Y^2-60X^2Z^2+3Y^4-60Y^2Z^2+80Z^4)}{32}$
52	$-\frac{Z(35X^6+105X^4Y^2-210X^4Z^2+105X^2Y^4-420X^2Y^2Z^2+168X^2Z^4+35Y^6-210Y^4Z^2+168Y^2Z^4-16Z^6)}{16}$
53	$\frac{\sqrt{6006}Z(X-Y)(X+Y)(X^2-4XY+Y^2)(X^2+4XY+Y^2)}{32}$
54	$\frac{\sqrt{21}X(X^2-3Y^2)(3X^4+6X^2Y^2-60X^2Z^2+3Y^4-60Y^2Z^2+80Z^4)}{32}$
55	$-\frac{\sqrt{429}Y(7X^6-35X^4Y^2+21X^2Y^4-Y^6)}{32}$
56	$\frac{\sqrt{429}X(X^6-21X^4Y^2+35X^2Y^4-7Y^6)}{32}$
57	$-\frac{\sqrt{231}Y(X^2+Y^2-12Z^2)(5X^4-10X^2Y^2+Y^4)}{32}$
58	$-\frac{\sqrt{231}X(X^2+Y^2-12Z^2)(X^4-10X^2Y^2+5Y^4)}{32}$
59	$\frac{\sqrt{7}Y(5X^6+15X^4Y^2-120X^4Z^2+15X^2Y^4-240X^2Y^2Z^2+240X^2Z^4+5Y^6-120Y^4Z^2+240Y^2Z^4-64Z^6)}{32}$
60	$-\frac{\sqrt{7}X(5X^6+15X^4Y^2-120X^4Z^2+15X^2Y^4-240X^2Y^2Z^2+240X^2Z^4+5Y^6-120Y^4Z^2+240Y^2Z^4-64Z^6)}{32}$
61	$\frac{\sqrt{231}XYZ(X-Y)(X+Y)(3X^2+3Y^2-10Z^2)}{4}$
62	$-\frac{\sqrt{231}Z(X^2-2XY-Y^2)(X^2+2XY-Y^2)(3X^2+3Y^2-10Z^2)}{16}$
63	$\frac{\sqrt{42}XYZ(15X^4+30X^2Y^2-80X^2Z^2+15Y^4-80Y^2Z^2+48Z^4)}{16}$
64	$\frac{\sqrt{42}Z(X-Y)(X+Y)(15X^4+30X^2Y^2-80X^2Z^2+15Y^4-80Y^2Z^2+48Z^4)}{32}$

表 9 rank 8

No.	expression
65	$\frac{35X^8}{128} + \frac{35X^6Y^2}{32} - \frac{35X^6Z^2}{4} + \frac{105X^4Y^4}{64} - \frac{105X^4Y^2Z^2}{4} + \frac{105X^4Z^4}{4} + \frac{35X^2Y^6}{32} - \frac{105X^2Y^4Z^2}{4} + \frac{105X^2Y^2Z^4}{2} - 14X^2Z^6 + \frac{35Y^8}{128} - \frac{35Y^6Z^2}{4} + \frac{105Y^4Z^4}{4} - 14Y^2Z^6 + Z^8$
66	$-\frac{\sqrt{858}(X-Y)(X+Y)(X^2+Y^2-14Z^2)(X^2-4XY+Y^2)(X^2+4XY+Y^2)}{64}$
67	$\frac{\sqrt{1155}XZ(X^2-3Y^2)(3X^4+6X^2Y^2-20X^2Z^2+3Y^4-20Y^2Z^2+16Z^4)}{32}$
68	$-\frac{\sqrt{858}XY(X^2-3Y^2)(3X^2-Y^2)(X^2+Y^2-14Z^2)}{32}$
69	$\frac{\sqrt{1155}YZ(3X^2-Y^2)(3X^4+6X^2Y^2-20X^2Z^2+3Y^4-20Y^2Z^2+16Z^4)}{32}$
70	$-\frac{3\sqrt{715}YZ(7X^6-35X^4Y^2+21X^2Y^4-Y^6)}{32}$
71	$\frac{3\sqrt{715}XZ(X^6-21X^4Y^2+35X^2Y^4-7Y^6)}{32}$
72	$-\frac{3\sqrt{1001}YZ(X^2+Y^2-4Z^2)(5X^4-10X^2Y^2+Y^4)}{32}$
73	$-\frac{3\sqrt{1001}XZ(X^2+Y^2-4Z^2)(X^4-10X^2Y^2+5Y^4)}{32}$
74	$\frac{3YZ(35X^6+105X^4Y^2-280X^4Z^2+105X^2Y^4-560X^2Y^2Z^2+336X^2Z^4+35Y^6-280Y^4Z^2+336Y^2Z^4-64Z^6)}{32}$
75	$-\frac{3XZ(35X^6+105X^4Y^2-280X^4Z^2+105X^2Y^4-560X^2Y^2Z^2+336X^2Z^4+35Y^6-280Y^4Z^2+336Y^2Z^4-64Z^6)}{32}$
76	$\frac{3\sqrt{715}XY(X-Y)(X+Y)(X^2-2XY-Y^2)(X^2+2XY-Y^2)}{16}$
77	$\frac{3\sqrt{715}(X^4-4X^3Y-6X^2Y^2+4XY^3+Y^4)(X^4+4X^3Y-6X^2Y^2-4XY^3+Y^4)}{128}$
78	$-\frac{3\sqrt{77}XY(X-Y)(X+Y)(X^4+2X^2Y^2-24X^2Z^2+Y^4-24Y^2Z^2+40Z^4)}{16}$
79	$\frac{3\sqrt{77}(X^2-2XY-Y^2)(X^2+2XY-Y^2)(X^4+2X^2Y^2-24X^2Z^2+Y^4-24Y^2Z^2+40Z^4)}{64}$
80	$-\frac{3\sqrt{70}XY(X^6+3X^4Y^2-30X^4Z^2+3X^2Y^4-60X^2Y^2Z^2+80X^2Z^4+Y^6-30Y^4Z^2+80Y^2Z^4-32Z^6)}{32}$
81	$-\frac{3\sqrt{70}(X-Y)(X+Y)(X^6+3X^4Y^2-30X^4Z^2+3X^2Y^4-60X^2Y^2Z^2+80X^2Z^4+Y^6-30Y^4Z^2+80Y^2Z^4-32Z^6)}{64}$

表 10 rank 9

No.	expression
82	$-\frac{\sqrt{4290}XYZ(X^2-3Y^2)(3X^2-Y^2)(3X^2+3Y^2-14Z^2)}{32}$
83	$\frac{\sqrt{24310}Y(3X^2-Y^2)(3X^6-27X^4Y^2+33X^2Y^4-Y^6)}{256}$
84	$-\frac{\sqrt{2310}Y(3X^2-Y^2)(X^6+3X^4Y^2-36X^4Z^2+3X^2Y^4-72X^2Y^2Z^2+120X^2Z^4+Y^6-36Y^4Z^2+120Y^2Z^4-64Z^6)}{128}$
85	$\frac{Z(315X^8+1260X^6Y^2-3360X^6Z^2+1890X^4Y^4-10080X^4Y^2Z^2+6048X^4Z^4+1260X^2Y^6-10080X^2Y^4Z^2+12096X^2Y^2Z^4-2304X^2Z^6+315Y^8-3360Y^6Z^2+6048Y^4Z^4-2304Y^2Z^6+128Z^8)}{128}$
86	$-\frac{\sqrt{4290}Z(X-Y)(X+Y)(X^2-4XY+Y^2)(X^2+4XY+Y^2)(3X^2+3Y^2-14Z^2)}{64}$
87	$\frac{\sqrt{24310}X(X^2-3Y^2)(X^6-33X^4Y^2+27X^2Y^4-3Y^6)}{256}$
88	$-\frac{\sqrt{2310}X(X^2-3Y^2)(X^6+3X^4Y^2-36X^4Z^2+3X^2Y^4-72X^2Y^2Z^2+120X^2Z^4+Y^6-36Y^4Z^2+120Y^2Z^4-64Z^6)}{128}$
89	$\frac{3\sqrt{1430}Y(X^2+Y^2-16Z^2)(7X^6-35X^4Y^2+21X^2Y^4-Y^6)}{256}$
90	$-\frac{3\sqrt{1430}X(X^2+Y^2-16Z^2)(X^6-21X^4Y^2+35X^2Y^4-7Y^6)}{256}$
91	$\frac{3\sqrt{286}Y(5X^4-10X^2Y^2+Y^4)(X^4+2X^2Y^2-28X^2Z^2+Y^4-28Y^2Z^2+56Z^4)}{128}$
92	$\frac{3\sqrt{286}X(X^4-10X^2Y^2+5Y^4)(X^4+2X^2Y^2-28X^2Z^2+Y^4-28Y^2Z^2+56Z^4)}{128}$
93	$-\frac{3\sqrt{5}Y(7X^8+28X^6Y^2-280X^6Z^2+42X^4Y^4-840X^4Y^2Z^2+1120X^4Z^4+28X^2Y^6-840X^2Y^4Z^2+2240X^2Y^2Z^4-896X^2Z^6+7Y^8-280Y^6Z^2+1120Y^4Z^4-896Y^2Z^6+128Z^8)}{128}$
94	$\frac{3\sqrt{5}X(7X^8+28X^6Y^2-280X^6Z^2+42X^4Y^4-840X^4Y^2Z^2+1120X^4Z^4+28X^2Y^6-840X^2Y^4Z^2+2240X^2Y^2Z^4-896X^2Z^6+7Y^8-280Y^6Z^2+1120Y^4Z^4-896Y^2Z^6+128Z^8)}{128}$
95	$\frac{3\sqrt{12155}XYZ(X-Y)(X+Y)(X^2-2XY-Y^2)(X^2+2XY-Y^2)}{16}$
96	$\frac{3\sqrt{12155}Z(X^4-4X^3Y-6X^2Y^2+4XY^3+Y^4)(X^4+4X^3Y-6X^2Y^2-4XY^3+Y^4)}{128}$
97	$-\frac{3\sqrt{5005}XYZ(X-Y)(X+Y)(X^4+2X^2Y^2-8X^2Z^2+Y^4-8Y^2Z^2+8Z^4)}{16}$
98	$\frac{3\sqrt{5005}Z(X^2-2XY-Y^2)(X^2+2XY-Y^2)(X^4+2X^2Y^2-8X^2Z^2+Y^4-8Y^2Z^2+8Z^4)}{64}$
99	$-\frac{3\sqrt{110}XYZ(7X^6+21X^4Y^2-70X^4Z^2+21X^2Y^4-140X^2Y^2Z^2+112X^2Z^4+7Y^6-70Y^4Z^2+112Y^2Z^4-32Z^6)}{32}$
100	$-\frac{3\sqrt{110}Z(X-Y)(X+Y)(7X^6+21X^4Y^2-70X^4Z^2+21X^2Y^4-140X^2Y^2Z^2+112X^2Z^4+7Y^6-70Y^4Z^2+112Y^2Z^4-32Z^6)}{64}$

表 11 rank 10

No.	expression
101	$-\frac{63X^{10}}{256} - \frac{315X^8Y^2}{256} + \frac{1575X^8Z^2}{128} - \frac{315X^6Y^4}{128} + \frac{1575X^6Y^2Z^2}{32} - \frac{525X^6Z^4}{8} - \frac{315X^4Y^6}{128} + \frac{4725X^4Y^4Z^2}{64} - \frac{1575X^4Y^2Z^4}{8} + \frac{315X^4Z^6}{4} - \frac{315X^2Y^8}{256} + \frac{1575X^2Y^6Z^2}{32} - \frac{1575X^2Y^4Z^4}{8} + \frac{315X^2Y^2Z^6}{2} - \frac{45X^2Z^8}{2} - \frac{63Y^{10}}{256} + \frac{1575Y^8Z^2}{128} - \frac{525Y^6Z^4}{8} + \frac{315Y^4Z^6}{4} - \frac{45Y^2Z^8}{2} + Z^{10}$
102	$\frac{\sqrt{4290}(X-Y)(X+Y)(X^2-4XY+Y^2)(X^2+4XY+Y^2)(3X^4+6X^2Y^2-96X^2Z^2+3Y^4-96Y^2Z^2+224Z^4)}{512}$
103	$\frac{\sqrt{461890}XZ(X^2-3Y^2)(X^6-33X^4Y^2+27X^2Y^4-3Y^6)}{256}$
104	$-\frac{\sqrt{4290}XZ(X^2-3Y^2)(7X^6+21X^4Y^2-84X^4Z^2+21X^2Y^4-168X^2Y^2Z^2+168X^2Z^4+7Y^6-84Y^4Z^2+168Y^2Z^4-64Z^6)}{128}$
105	$\frac{\sqrt{4290}XY(X^2-3Y^2)(3X^2-Y^2)(3X^4+6X^2Y^2-96X^2Z^2+3Y^4-96Y^2Z^2+224Z^4)}{256}$
106	$\frac{\sqrt{461890}YZ(3X^2-Y^2)(3X^6-27X^4Y^2+33X^2Y^4-Y^6)}{256}$
107	$-\frac{\sqrt{4290}YZ(3X^2-Y^2)(7X^6+21X^4Y^2-84X^4Z^2+21X^2Y^4-168X^2Y^2Z^2+168X^2Z^4+7Y^6-84Y^4Z^2+168Y^2Z^4-64Z^6)}{128}$
108	$\frac{\sqrt{72930}YZ(3X^2+3Y^2-16Z^2)(7X^6-35X^4Y^2+21X^2Y^4-Y^6)}{256}$
109	$-\frac{\sqrt{72930}XZ(3X^2+3Y^2-16Z^2)(X^6-21X^4Y^2+35X^2Y^4-7Y^6)}{256}$
110	$\frac{\sqrt{858}YZ(5X^4-10X^2Y^2+Y^4)(15X^4+30X^2Y^2-140X^2Z^2+15Y^4-140Y^2Z^2+168Z^4)}{128}$
111	$\frac{\sqrt{858}XZ(X^4-10X^2Y^2+5Y^4)(15X^4+30X^2Y^2-140X^2Z^2+15Y^4-140Y^2Z^2+168Z^4)}{128}$
112	$-\frac{\sqrt{55}YZ(63X^8+252X^6Y^2-840X^6Z^2+378X^4Y^4-2520X^4Y^2Z^2+2016X^4Z^4+252X^2Y^6-2520X^2Y^4Z^2+4032X^2Y^2Z^4-1152X^2Z^6+63Y^8-840Y^6Z^2+2016Y^4Z^4-1152Y^2Z^6+128Z^8)}{128}$
113	$\frac{\sqrt{55}XZ(63X^8+252X^6Y^2-840X^6Z^2+378X^4Y^4-2520X^4Y^2Z^2+2016X^4Z^4+252X^2Y^6-2520X^2Y^4Z^2+4032X^2Y^2Z^4-1152X^2Z^6+63Y^8-840Y^6Z^2+2016Y^4Z^4-1152Y^2Z^6+128Z^8)}{128}$
114	$-\frac{\sqrt{92378}XY(X^4-10X^2Y^2+5Y^4)(5X^4-10X^2Y^2+Y^4)}{256}$
115	$\frac{\sqrt{92378}(X-Y)(X+Y)(X^4-4X^3Y-14X^2Y^2-4XY^3+Y^4)(X^4+4X^3Y-14X^2Y^2+4XY^3+Y^4)}{512}$
116	$-\frac{\sqrt{12155}XY(X-Y)(X+Y)(X^2+Y^2-18Z^2)(X^2-2XY-Y^2)(X^2+2XY-Y^2)}{32}$
117	$-\frac{\sqrt{12155}(X^2+Y^2-18Z^2)(X^4-4X^3Y-6X^2Y^2+4XY^3+Y^4)(X^4+4X^3Y-6X^2Y^2-4XY^3+Y^4)}{256}$
118	$\frac{\sqrt{2145}XY(X-Y)(X+Y)(X^6+3X^4Y^2-42X^4Z^2+3X^2Y^4-84X^2Y^2Z^2+168X^2Z^4+Y^6-42Y^4Z^2+168Y^2Z^4-112Z^6)}{32}$
119	$-\frac{\sqrt{2145}(X^2-2XY-Y^2)(X^2+2XY-Y^2)(X^6+3X^4Y^2-42X^4Z^2+3X^2Y^4-84X^2Y^2Z^2+168X^2Z^4+Y^6-42Y^4Z^2+168Y^2Z^4-112Z^6)}{128}$
120	$\frac{\sqrt{165}XY(7X^8+28X^6Y^2-336X^6Z^2+42X^4Y^4-1008X^4Y^2Z^2+1680X^4Z^4+28X^2Y^6-1008X^2Y^4Z^2+3360X^2Y^2Z^4-1792X^2Z^6+7Y^8-336Y^6Z^2+1680Y^4Z^4-1792Y^2Z^6+384Z^8)}{128}$
121	$\frac{\sqrt{165}(X-Y)(X+Y)(7X^8+28X^6Y^2-336X^6Z^2+42X^4Y^4-1008X^4Y^2Z^2+1680X^4Z^4+28X^2Y^6-1008X^2Y^4Z^2+3360X^2Y^2Z^4-1792X^2Z^6+7Y^8-336Y^6Z^2+1680Y^4Z^4-1792Y^2Z^6+384Z^8)}{256}$

表 12 rank 11

No.	expression
122	$\frac{\sqrt{14586}XYZ(X^2-3Y^2)(3X^2-Y^2)(15X^4+30X^2Y^2-160X^2Z^2+15Y^4-160Y^2Z^2+224Z^4)}{256}$
123	$-\frac{\sqrt{46189}Y(3X^2-Y^2)(X^2+Y^2-20Z^2)(3X^6-27X^4Y^2+33X^2Y^4-Y^6)}{512}$
124	$\frac{\sqrt{30030}Y(3X^2-Y^2)(X^8+4X^6Y^2-56X^6Z^2+6X^4Y^4-168X^4Y^2Z^2+336X^4Z^4+4X^2Y^6-168X^2Y^4Z^2+672X^2Y^2Z^4-448X^2Z^6+Y^8-56Y^6Z^2+336Y^4Z^4-448Y^2Z^6+128Z^8)}{512}$
125	$-\frac{Z(693X^{10}+3465X^8Y^2-11550X^8Z^2+6930X^6Y^4-46200X^6Y^2Z^2+36960X^6Z^4+6930X^4Y^6-69300X^4Y^4Z^2+110880X^4Y^2Z^4-31680X^4Z^6+3465X^2Y^8-46200X^2Y^6Z^2+110880X^2Y^4Z^4-63360X^2Y^2Z^6+7040X^2Z^8+693Y^{10}-11550Y^8Z^2+36960Y^6Z^4-31680Y^4Z^6+7040Y^2Z^8-256Z^{10})}{256}$
126	$\frac{\sqrt{14586}Z(X-Y)(X+Y)(X^2-4XY+Y^2)(X^2+4XY+Y^2)(15X^4+30X^2Y^2-160X^2Z^2+15Y^4-160Y^2Z^2+224Z^4)}{512}$
127	$-\frac{\sqrt{46189}X(X^2-3Y^2)(X^2+Y^2-20Z^2)(X^6-33X^4Y^2+27X^2Y^4-3Y^6)}{512}$
128	$\frac{\sqrt{30030}X(X^2-3Y^2)(X^8+4X^6Y^2-56X^6Z^2+6X^4Y^4-168X^4Y^2Z^2+336X^4Z^4+4X^2Y^6-168X^2Y^4Z^2+672X^2Y^2Z^4-448X^2Z^6+Y^8-56Y^6Z^2+336Y^4Z^4-448Y^2Z^6+128Z^8)}{512}$
129	$\frac{\sqrt{88179}Y(11X^{10}-165X^8Y^2+462X^6Y^4-330X^4Y^6+55X^2Y^8-Y^{10})}{512}$
130	$\frac{\sqrt{88179}X(X^{10}-55X^8Y^2+330X^6Y^4-462X^4Y^6+165X^2Y^8-11Y^{10})}{512}$
131	$-\frac{\sqrt{36465}Y(7X^6-35X^4Y^2+21X^2Y^4-Y^6)(X^4+2X^2Y^2-36X^2Z^2+Y^4-36Y^2Z^2+96Z^4)}{512}$
132	$\frac{\sqrt{36465}X(X^6-21X^4Y^2+35X^2Y^4-7Y^6)(X^4+2X^2Y^2-36X^2Z^2+Y^4-36Y^2Z^2+96Z^4)}{512}$
133	$-\frac{3\sqrt{143}Y(5X^4-10X^2Y^2+Y^4)(5X^6+15X^4Y^2-240X^4Z^2+15X^2Y^4-480X^2Y^2Z^2+1120X^2Z^4+5Y^6-240Y^4Z^2+1120Y^2Z^4-896Z^6)}{512}$
134	$-\frac{3\sqrt{143}X(X^4-10X^2Y^2+5Y^4)(5X^6+15X^4Y^2-240X^4Z^2+15X^2Y^4-480X^2Y^2Z^2+1120X^2Z^4+5Y^6-240Y^4Z^2+1120Y^2Z^4-896Z^6)}{512}$
135	$\frac{\sqrt{66}Y(21X^{10}+105X^8Y^2-1260X^8Z^2+210X^6Y^4-5040X^6Y^2Z^2+8400X^6Z^4+210X^4Y^6-7560X^4Y^4Z^2+25200X^4Y^2Z^4-13440X^4Z^6+105X^2Y^8-5040X^2Y^6Z^2+25200X^2Y^4Z^4-26880X^2Y^2Z^6+5760X^2Z^8+21Y^{10}-1260Y^8Z^2+8400Y^6Z^4-13440Y^4Z^6+5760Y^2Z^8-512Z^{10})}{512}$
136	$-\frac{\sqrt{66}X(21X^{10}+105X^8Y^2-1260X^8Z^2+210X^6Y^4-5040X^6Y^2Z^2+8400X^6Z^4+210X^4Y^6-7560X^4Y^4Z^2+25200X^4Y^2Z^4-13440X^4Z^6+105X^2Y^8-5040X^2Y^6Z^2+25200X^2Y^4Z^4-26880X^2Y^2Z^6+5760X^2Z^8+21Y^{10}-1260Y^8Z^2+8400Y^6Z^4-13440Y^4Z^6+5760Y^2Z^8-512Z^{10})}{512}$
137	$-\frac{\sqrt{1939938}XYZ(X^4-10X^2Y^2+5Y^4)(5X^4-10X^2Y^2+Y^4)}{256}$
138	$\frac{\sqrt{1939938}Z(X-Y)(X+Y)(X^4-4X^3Y-14X^2Y^2-4XY^3+Y^4)(X^4+4X^3Y-14X^2Y^2+4XY^3+Y^4)}{512}$
139	$-\frac{\sqrt{692835}XYZ(X-Y)(X+Y)(X^2+Y^2-6Z^2)(X^2-2XY-Y^2)(X^2+2XY-Y^2)}{32}$
140	$-\frac{\sqrt{692835}Z(X^2+Y^2-6Z^2)(X^4-4X^3Y-6X^2Y^2+4XY^3+Y^4)(X^4+4X^3Y-6X^2Y^2-4XY^3+Y^4)}{256}$
141	$\frac{3\sqrt{1001}XYZ(X-Y)(X+Y)(5X^6+15X^4Y^2-70X^4Z^2+15X^2Y^4-140X^2Y^2Z^2+168X^2Z^4+5Y^6-70Y^4Z^2+168Y^2Z^4-80Z^6)}{32}$
142	$-\frac{3\sqrt{1001}Z(X^2-2XY-Y^2)(X^2+2XY-Y^2)(5X^6+15X^4Y^2-70X^4Z^2+15X^2Y^4-140X^2Y^2Z^2+168X^2Z^4+5Y^6-70Y^4Z^2+168Y^2Z^4-80Z^6)}{128}$
143	$\frac{\sqrt{2145}XYZ(21X^8+84X^6Y^2-336X^6Z^2+126X^4Y^4-1008X^4Y^2Z^2+1008X^4Z^4+84X^2Y^6-1008X^2Y^4Z^2+2016X^2Y^2Z^4-768X^2Z^6+21Y^8-336Y^6Z^2+1008Y^4Z^4-768Y^2Z^6+128Z^8)}{128}$
144	$\frac{\sqrt{2145}Z(X-Y)(X+Y)(21X^8+84X^6Y^2-336X^6Z^2+126X^4Y^4-1008X^4Y^2Z^2+1008X^4Z^4+84X^2Y^6-1008X^2Y^4Z^2+2016X^2Y^2Z^4-768X^2Z^6+21Y^8-336Y^6Z^2+1008Y^4Z^4-768Y^2Z^6+128Z^8)}{256}$