```
Author: Marshall J. Styczinski
     Calculates Re and Im parts of xyz components of multipole fields from n=1 to n=10.
    \psi is the multipole potential for the field being evaluated.
     Written for the MoonMag framework; see https://github.com/NASA-Planetary-Science/MoonMag
In[27]:= Remove["Global`*"]
    (* Rule for replacing complex exponentials *)
    euler = \{Exp[x_] \Rightarrow Cos[x/i] + iSin[x/i]\};
      (*Create potential functions from r power series and spherical harmonics*)
    \psiinm[l_, m_, \theta_, \phi_] := r^(-(l+1)) * SphericalHarmonicY[l, m, \theta, \phi] /. euler // Simplify;
     \psienm[l_, m_, \theta_, \phi_] := r^l * SphericalHarmonicY[l, m, \theta, \phi] /. euler // Simplify;
In[31]:= (* Replacement rules for trigonometric functions in terms of Cartesians *)
         Cos[\theta] \rightarrow z/r,
          Cos[\phi] \rightarrow (x/r)/Sin[\theta],
          Sin[\phi] \rightarrow (y/r)/Sin[\theta],
          Sin[\theta]^{x}, x > 1 \rightarrow (1 - (z/r)^{2})^{x/2},
          Csc[\theta] \rightarrow 1/(1-(z/r)^2)^{1/2},
         Csc[\theta]^{x} \rightarrow 1/(1-(z/r)^{2})^{x/2},
         \mathsf{Cot}[\theta]^{\mathsf{x}_{-}} \to \left( \left( \mathsf{z} \, / \, \mathsf{r} \right)^{\, 2} \, \middle/ \, \left( 1 - \left( \mathsf{z} \, / \, \mathsf{r} \right)^{\, 2} \right) \right)^{\, \mathsf{x}/2} \right\};
```



```
In[32]:= (*Replace trig functions in spherical harmonics according to above rules*)
    ReplTrig[exp_] := Module[{i, buff},
        buff = exp;
        For[i = 0, i ≤ 3, i++,
        buff = Simplify[TrigExpand[buff] /. crep];
         Expand[buff] /. \{r^q \rightarrow (x^2 + y^2 + z^2)^(q/2)\}
      (*Create constants A1-A4 to divide away for clarity*)
     coeff = {
      \sqrt{3/(8\pi)},
      \sqrt{15/(32\pi)},
      \sqrt{7/(64\pi)},
      \sqrt{1/(192\pi)},
         \sqrt{11/(16\pi)},
         \sqrt{91/(2048\,\pi)},
         \sqrt{15/(16\pi)},
        3/256 * \sqrt{17/\pi},
        1/256 * \sqrt{95/(2\pi)},
        1/64 * \sqrt{1155/(2\pi)}
      (*Create gradient functions to insert into tables*)
     mGradExt[nv_, mvals_, deriv_] := -D[ReplTrig[\psienm[nv, \#, \theta, \phi]], deriv] \div coeff[[nv]] & /@ mvals;
    mGradInd[nv_, mvals_, deriv_] := -D[ReplTrig[\psiinm[nv, \#, \theta, \phi]], deriv] \div coeff[[nv]] \star ((x^2 + y^2 + z^2)^(1/2))^(2 nv + 3) & /@ mvals;
```



```
(*Create print formatting titles for tables*)
 titles = {
{"Dipole B", "(A1/r^5):"},
 {"Quadrupole B", "(A2/r^7):"},
  {"Octupole B", "(A3/r^9):"},
  {"Hexadecapole B", "(A4/r^11):"},
 {"n=5 B", "(A5/r^13):"},
 {"n=6 B", "(A6/r^15):"},
 {"n=7 B", "(A7/r^17):"},
 {"n=8 B", "(A8/r^19):"},
 {"n=9 B", "(A9/r^21):"},
 {"n=10 B", "(A10/r^23):"}
  (*Print excitation field components*)
 Print["Uniform Bx:"]
Print[TableForm[ReIm[mGradExt[1, \{-1, 0, 1\}, x]] * A1 // Simplify, TableHeadings \rightarrow { \{-1, 0, 1\}, \{"Re", "Im"\}\}]]
 Print["\nUniform By:"]
 Print[TableForm[ReIm[mGradExt[1, \{-1, 0, 1\}, y]] * A1 // Simplify, TableHeadings \rightarrow \{ \{-1, 0, 1\}, \{"Re", "Im"\} \}]] 
 Print["\nUniform Bz:"]
 Print[TableForm[ReIm[mGradExt[1, \{-1, 0, 1\}, z]] * A1 // Simplify, TableHeadings \rightarrow \{ \{-1, 0, 1\}, \{"Re", "Im"\}\}]] 
Print["Linear Bx(2*A2):"]
 Print[TableForm[ComplexExpand[ReIm[mGradExt[2, \{-2, -1, 0, 1, 2\}, x]]] * 1/2// Simplify, TableHeadings \rightarrow \{ \{-2, -1, 0, 1, 2\}, \{"Re", "Im"\} \}]] 
 Print["\nLinear By(2*A2):"]
Print[TableForm[ComplexExpand[ReIm[mGradExt[2, {-2, -1, 0, 1, 2}, y]]] * 1 / 2 // Simplify, TableHeadings → { {-2, -1, 0, 1, 2}, {"Re", "Im"}}]]
 Print["\nLinear Bz(2*A2):"]
Print[TableForm[ComplexExpand[ReIm[mGradExt[2, {-2, -1, 0, 1, 2}, z]]] * 1 / 2 // Simplify, TableHeadings → { {-2, -1, 0, 1, 2}, {"Re", "Im"}}]]
  (*Print induced field components*)
 For [n = 1, n \le 10, n++,
 mrange = Range[-n, n];
Print["\n", titles[[n, 1]], "x", titles[[n, 2]]] x
    Print[TableForm[ComplexExpand[ReIm[mGradInd[n, mrange, x]]] // Refine // Simplify, TableHeadings → { mrange, {"Re", "Im"}}]] ×
 Print["\n", titles[[n, 1]], "y", titles[[n, 2]]] x
    Print[TableForm[ComplexExpand[ReIm[mGradInd[n, mrange, y]]] // Refine // Simplify, TableHeadings → { mrange, {"Re", "Im"}}]] ×
 Print["\n", titles[[n, 1]], "z", titles[[n, 2]]] x
    Print[TableForm[ComplexExpand[ReIm[mGradInd[n, mrange, z]]] // Refine // Simplify, TableHeadings → { mrange, {"Re", "Im"}}]]
Print["\n"]
 Uniform Bx:
```

	Re	Ir
- 1	- A1	0
0	0	0
1	A1	0

# Uniform By:

	Re	1
- 1	0	P
0	0	0
1	0	_

# 

<del>- 2</del>	- X
- 1	- Z
•	2

$$0 \qquad \sqrt{\frac{2}{3}} y$$

# Linear Bz (2\*A2): Re Im -2 0 0 -1 -x y 0 $-2\sqrt{\frac{2}{3}}$ z 0 1 x y 2 0 0

# Dipole Bx(A1/r^5):

	Re	Im
<b>- 1</b>	$2 x^2 - y^2 - z^2$	-3 x y
Θ	3 √2 x z	0
1	$-2 x^2 + y^2 + z^2$	-3 x y

# Dipole By(A1/r^5): | Re Im

	Re	Im
- 1	3 x y	$x^2 - 2y^2 + z^2$
0	3 √2 y z	0
1	-3 x y	$x^2 - 2 y^2 + z^2$

### Dipole Bz(A1/r^5):

Re	Im
3 x z	-3 y z
$-\sqrt{2} \left(x^2 + y^2 - 2 z^2\right)$	0
-3 x z	-3 y z

Quadrupole Bx(A2/r^7):		
	Re	Im
<del>-</del> 2	$x (3 x^2 - 7 y^2 - 2 z^2)$	$2 y \left(-4 x^2 + y^2 + z^2\right)$
- 1	$\begin{array}{c} x \left( 3 \ x^2 - 7 \ y^2 - 2 \ z^2 \right) \\ 8 \ x^2 \ z - 2 \ z \left( y^2 + z^2 \right) \\ - \sqrt{6} \ x \left( x^2 + y^2 - 4 \ z^2 \right) \\ 2 \ z \left( -4 \ x^2 + y^2 + z^2 \right) \\ x \left( 3 \ x^2 - 7 \ y^2 - 2 \ z^2 \right) \end{array}$	– 10 x y z
0	$-\sqrt{6} \ x \ \left(x^2 + y^2 - 4 \ z^2\right)$	0
1	$2 z \left(-4 x^2 + y^2 + z^2\right)$	–10 x y z
2	$x \left( 3 \ x^2 - 7 \ y^2 - 2 \ z^2 \right)$	$8 x^2 y - 2 y (y^2 + z^2)$

### Quadrupole By $(A2/r^{7})$ :

		Re	1m
_	2	$y \left(7 x^2 - 3 y^2 + 2 z^2\right)$	$2 \times (x^2 - 4 y^2 + z^2)$
-	1	10 x y z	$2 z (x^2 - 4 y^2 + z^2)$
0	)	$\begin{array}{l} -\sqrt{6} \ y \ \left(x^2+y^2-4 \ z^2\right) \\ -10 \ x \ y \ z \\ y \ \left(7 \ x^2-3 \ y^2+2 \ z^2\right) \end{array}$	0
1		– 10 x y z	$2 z (x^2 - 4 y^2 + z^2)$
2	!	$y \ \left( 7 \ x^2 - 3 \ y^2 + 2 \ z^2 \right)$	$-2 x (x^2 - 4 y^2 + z^2)$

# Quadrupole $Bz(A2/r^{1})$ :

	Re	Im
<b>- 2</b>	$5 \left(x^2 - y^2\right) z$	– 10 x y z
- 1	$ 5 (x^2 - y^2) z $ $ -2 x (x^2 + y^2 - 4 z^2) $	$2\ y\ \left(x^2\ +\ y^2\ -\ 4\ z^2\right)$
0	$\sqrt{6} z \left(-3 x^2 - 3 y^2 + 2 z^2\right)$	0
1	$2 \times (x^2 + y^2 - 4 z^2)$	$2 \ y \ \left(x^2 + y^2 - 4 \ z^2\right)$
2	$5 \left(x^2 - y^2\right) z$	10 x y z

# Octupole Bx(A3/r^9):

	Re	Im
- 3	$\sqrt{5} \left(4 x^4 + 3 y^2 \left(y^2 + z^2\right) - 3 x^2 \left(7 y^2 + z^2\right)\right)$	$\sqrt{5}$ x y $\left(-15 \text{ x}^2 + 13 \text{ y}^2 + 6 \text{ z}^2\right)$
- 2	$\sqrt{30} \times z (5 x^2 - 9 y^2 - 2 z^2)$	$2\sqrt{30}\ y\ z\ \left(-6\ x^2+y^2+z^2\right)$
- 1	$\begin{array}{c} \sqrt{3} \ \left(-4 \ x^4 + y^4 - 3 \ y^2 \ z^2 - 4 \ z^4 - 3 \ x^2 \ \left(y^2 - 9 \ z^2\right)\right) \\ -10 \ x \ z \ \left(3 \ x^2 + 3 \ y^2 - 4 \ z^2\right) \end{array}$	$5\sqrt{3} \ x \ y \ \left(x^2 + y^2 - 6 \ z^2\right)$
0	$-10 \times z \left(3 \times^2 + 3 y^2 - 4 z^2\right)$	0
	$\sqrt{3} \left(4 x^4 - y^4 + 3 y^2 z^2 + 4 z^4 + 3 x^2 (y^2 - 9 z^2)\right)$	$5\sqrt{3} \times y (x^2 + y^2 - 6z^2)$
2	$\sqrt{30} \times z (5 x^2 - 9 y^2 - 2 z^2)$	$-2\sqrt{30}\ yz\left(-6x^2+y^2+z^2\right)$
	$\sqrt{5} \left(-4 x^4 - 3 y^2 \left(y^2 + z^2\right) + 3 x^2 \left(7 y^2 + z^2\right)\right)$	$\sqrt{5}\ x\ y\ \left(-15\ x^2+13\ y^2+6\ z^2 ight)$

### Octupole By(A3/r^9):

	Re	Im
- 3	$\sqrt{5}$ x y (13 x <sup>2</sup> - 15 y <sup>2</sup> + 6 z <sup>2</sup> )	$\sqrt{5}$ $\left(3~x^4+4~y^4-3~y^2~z^2+3~x^2~\left(-7~y^2+z^2 ight)\right)$
- 2	$\sqrt{30}$ y z $(9 x^2 - 5 y^2 + 2 z^2)$	$2\sqrt{30} \times z (x^2 - 6y^2 + z^2)$
	$\begin{array}{c} -5 \sqrt{3} \times y \left( x^2 + y^2 - 6 z^2 \right) \\ -10 \ y \ z \left( 3 \ x^2 + 3 \ y^2 - 4 \ z^2 \right) \end{array}$	$\sqrt{3} \ \left(- x^4 + 4 \; y^4 - 27 \; y^2 \; z^2 + 4 \; z^4 + 3 \; x^2 \; \left(y^2 + z^2\right)\right)$
Θ	$-10 \text{ y z } (3 \text{ x}^2 + 3 \text{ y}^2 - 4 \text{ z}^2)$	0
1	$5\sqrt{3} \times y (x^2 + y^2 - 6z^2)$	$\sqrt{3} \ \left( -x^4 + 4y^4 - 27y^2z^2 + 4z^4 + 3x^2\left(y^2 + z^2\right) \right)$
2	$\sqrt{30}$ y z $(9 x^2 - 5 y^2 + 2 z^2)$	$-2\sqrt{30} \ x \ z \ \left(x^2 - 6 \ y^2 + z^2\right)$
3	$\sqrt{5}$ x y $\left(-13 \text{ x}^2 + 15 \text{ y}^2 - 6 \text{ z}^2\right)$	$\sqrt{5} \ \left( 3 \ x^4 + 4 \ y^4 - 3 \ y^2 \ z^2 + 3 \ x^2 \ \left( -7 \ y^2 + z^2 \right) \right)$

### Octupole Bz(A3/r^9):

	Re	Im
- 3	$7\sqrt{5} \times (x^2 - 3y^2) z$	$7\sqrt{5} y \left(-3 x^2 + y^2\right) z$
- 2	$-\sqrt{30} \left(x^2 - y^2\right) \left(x^2 + y^2 - 6 z^2\right)$	$2\sqrt{30} \times y (x^2 + y^2 - 6z^2)$
- 1	$-5\sqrt{3} \times z \left(3 \times^2 + 3 y^2 - 4 z^2\right)$	$5 \sqrt{3} \ y \ z \ \left(3 \ x^2 + 3 \ y^2 - 4 \ z^2\right)$
0	$2 (3 x^4 + 3 y^4 - 24 y^2 z^2 + 8 z^4 + 6 x^2 (y^2 - 4 z^2))$	0
1	$5\sqrt{3} \times z \left(3 \times^2 + 3 y^2 - 4 z^2\right)$	$5  \sqrt{3}   y  z  \left( 3  x^2 + 3  y^2 - 4  z^2 \right)$
2	$-\sqrt{30} \left(x^2 - y^2\right) \left(x^2 + y^2 - 6z^2\right)$	$-2\sqrt{30}\ x\ y\ \left(x^2+y^2-6\ z^2\right)$
3	$-7\sqrt{5} \times (x^2 - 3y^2) z$	$7 \sqrt{5} y \left(-3 x^2 + y^2\right) z$

Hexadecapole Bx(A4/r^11):

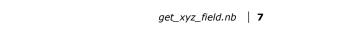
	Re	Im
-4	$ \frac{3}{2} \sqrt{\frac{105}{2}} \times \left(5 \times ^4 - 2 \times ^2 \left(23 \times ^2 + 2 \times ^2\right) + 3 \times ^2 \left(7 \times ^2 + 4 \times ^2\right)\right) $	$-3\sqrt{210}y\left(6x^{4}+y^{2}\left(y^{2}+z^{2}\right)-x^{2}\left(11y^{2}+3z^{2}\right)\right)$
- 3	$9\sqrt{105} z (2 x^4 + y^2 (y^2 + z^2) - x^2 (9 y^2 + z^2))$	$9\sqrt{105} \times yz \left(-7x^2 + 5y^2 + 2z^2\right)$
- 2	$-3 \sqrt{\frac{15}{2}} \times \left(5 x^4 - 9 y^4 + 66 y^2 z^2 + 12 z^4 - 2 x^2 \left(2 y^2 + 23 z^2\right)\right)$	$3  \sqrt{30}  y  \left( 6  x^4 - y^4 + 5  y^2  z^2 + 6  z^4 + x^2  \left( 5  y^2 - 51  z^2 \right) \right)$
- 1	$-3 \sqrt{15} z \left(18 x^4 - 3 y^4 + y^2 z^2 + 4 z^4 + x^2 \left(15 y^2 - 41 z^2\right)\right)$	63 $\sqrt{15}$ x y z $(x^2 + y^2 - 2 z^2)$
0	$\frac{45}{2} \sqrt{3} x \left(x^4 + y^4 - 12 y^2 z^2 + 8 z^4 + 2 x^2 (y^2 - 6 z^2)\right)$	0
1	$3\sqrt{15}$ z $\left(18 x^4 - 3 y^4 + y^2 z^2 + 4 z^4 + x^2 \left(15 y^2 - 41 z^2\right)\right)$	63 $\sqrt{15}$ x y z $(x^2 + y^2 - 2 z^2)$
2	$-3 \sqrt{\frac{15}{2}} \times \left(5 \times ^4 - 9 \times ^4 + 66 \times ^2 \times ^2 + 12 \times ^4 - 2 \times ^2 \left(2 \times ^2 + 23 \times ^2\right)\right)$	$3  \sqrt{30}  y  \left( -6  x^4 + y^4 - 5  y^2  z^2 - 6  z^4 + x^2  \left( -5  y^2 + 51  z^2 \right) \right)$
3	$-9 \sqrt{105} z \left(2 x^4 + y^2 \left(y^2 + z^2\right) - x^2 \left(9 y^2 + z^2\right)\right)$	$9\sqrt{105} \times yz \left(-7x^2 + 5y^2 + 2z^2\right)$
4	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$3 \ \sqrt{\textbf{210}} \ y \ \left(6 \ x^4 + y^2 \ \left(y^2 + z^2\right) \ - \ x^2 \ \left(\textbf{11} \ y^2 + 3 \ z^2\right)\right)$

### Hexadecapole By(A4/r^11):

	Re	Im
- 4	$\frac{_3}{^2}   \sqrt{\frac{_{105}}{^2}}   y  \left(21  x^4 + 5  y^4 - 4  y^2  z^2 + x^2  \left(-46  y^2 + 12  z^2\right)\right)$	$3  \sqrt{210}   x  \left(  x^4 + 6  y^4 - 3  y^2  z^2 + x^2  \left( - 11  y^2 + z^2  \right)  \right)$
- 3	$9\sqrt{105} \times y z (5 x^2 - 7 y^2 + 2 z^2)$	$9 \ \sqrt{\textbf{105}} \ z \ \left( x^4 + 2 \ y^4 - y^2 \ z^2 + x^2 \ \left( -9 \ y^2 + z^2 \right) \right)$
- 2	$3 \sqrt{\frac{15}{2}} \ y \left(-9 \ x^4 + 5 \ y^4 - 46 \ y^2 \ z^2 + 12 \ z^4 + x^2 \ \left(-4 \ y^2 + 66 \ z^2\right)\right)$	$-3\sqrt{30}x\left(x^{4}-6y^{4}+51y^{2}z^{2}-6z^{4}-5x^{2}\left(y^{2}+z^{2}\right)\right)$
- 1	$-63\sqrt{15} \times y z (x^2 + y^2 - 2 z^2)$	$3\sqrt{15}$ z $\left(-3x^4 + 18y^4 - 41y^2z^2 + 4z^4 + x^2\left(15y^2 + z^2\right)\right)$
9	$\frac{45}{2}  \sqrt{3}  \ y  \left( x^4 + y^4 - 12  y^2  z^2 + 8  z^4 + 2  x^2  \left( y^2 - 6  z^2 \right) \right)$	0
-	63 $\sqrt{15}$ x y z $(x^2 + y^2 - 2 z^2)$	$3  \sqrt{\textbf{15}}  \textbf{z}  \left( - 3  \textbf{x}^{4} + \textbf{18}  \textbf{y}^{4} - \textbf{41}  \textbf{y}^{2}  \textbf{z}^{2} + \textbf{4}  \textbf{z}^{4} + \textbf{x}^{2}  \left( \textbf{15}  \textbf{y}^{2} + \textbf{z}^{2} \right)  \right)$
2	$3 \sqrt{\frac{15}{2}} \ y \left(-9 \ x^4 + 5 \ y^4 - 46 \ y^2 \ z^2 + 12 \ z^4 + x^2 \ \left(-4 \ y^2 + 66 \ z^2\right)\right)$	$3  \sqrt{30}   x  \left(  x^4  -  6   y^4  +  51   y^2   z^2  -  6   z^4  -  5   x^2   \left(  y^2  +  z^2  \right)  \right)$
3	$-9\sqrt{105} \times y z (5 x^2 - 7 y^2 + 2 z^2)$	$9  \sqrt{\textbf{105}}   z  \left(  x^4  +  2   y^4  -  y^2   z^2  +  x^2   \left(  -  9   y^2  +  z^2  \right)  \right)$
1	$\frac{3}{2} \ \sqrt{\frac{105}{2}} \ y \ \left(21 \ x^4 + 5 \ y^4 - 4 \ y^2 \ z^2 + x^2 \ \left(-46 \ y^2 + 12 \ z^2\right)\right)$	$-3\sqrt{210}x\left(x^4+6y^4-3y^2z^2+x^2\left(-11y^2+z^2\right)\right)$

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Hexadecapole Bz(A4/ $r^{11}$ ):



	Re	Im
-4	$\frac{27}{2} \sqrt{\frac{105}{2}} \left( x^4 - 6 x^2 y^2 + y^4 \right) z$	$27 \sqrt{210} \times y \left(-x^2 + y^2\right) z$
- 3	$-3\sqrt{\textbf{105}}x\left(x^2-3y^2\right)\left(x^2+y^2-8z^2\right)$	$-3 \ \sqrt{\textbf{105}} \ y \ \left(-3 \ x^2 + y^2\right) \ \left(x^2 + y^2 - 8 \ z^2\right)$
-2	$-63 \sqrt{\frac{15}{2}} \left(x^2 - y^2\right) z \left(x^2 + y^2 - 2 z^2\right)$	63 $\sqrt{30}$ x y z $(x^2 + y^2 - 2 z^2)$
-1	$9\ \sqrt{\textbf{15}}\ x\ \left(x^4+y^4-\textbf{12}\ y^2\ z^2+8\ z^4+2\ x^2\ \left(y^2-6\ z^2\right)\right)$	$-9\sqrt{\textbf{15}}y\left(x^{4}+y^{4}-\textbf{12}y^{2}z^{2}+8z^{4}+2x^{2}\left(y^{2}-6z^{2}\right)\right)$
0	$\frac{15}{2}  \sqrt{3}  z  \left(15  x^4 + 15  y^4 - 40  y^2  z^2 + 8  z^4 + 10  x^2  \left(3  y^2 - 4  z^2\right)\right)$	0
1	$-9\sqrt{\textbf{15}}x\left(x^{4}+y^{4}-\textbf{12}y^{2}z^{2}+8z^{4}+2x^{2}\left(y^{2}-6z^{2}\right)\right)$	$-9\sqrt{\textbf{15}}y\left(x^{4}+y^{4}-\textbf{12}y^{2}z^{2}+8z^{4}+2x^{2}\left(y^{2}-6z^{2}\right)\right)$
2	$-63 \sqrt{\frac{15}{2}} (x^2 - y^2) z (x^2 + y^2 - 2 z^2)$	$-63 \sqrt{30} \times y z (x^2 + y^2 - 2 z^2)$
3	$3\sqrt{105} \times (x^2 - 3y^2) (x^2 + y^2 - 8z^2)$	$-3\sqrt{105}y\left(-3x^2+y^2\right)\left(x^2+y^2-8z^2\right)$
4	$\frac{27}{2} \sqrt{\frac{105}{2}} \left( x^4 - 6 \ x^2 \ y^2 + y^4 \right) \ z$	27 $\sqrt{210} \times y (x^2 - y^2) z$

### $n=5 \ Bx(A5/r^{13})$ :

	Re	Im
- 5	$\frac{3}{8} \sqrt{7} \left(6 \ x^6 - 5 \ y^4 \ \left(y^2 + z^2\right) - 5 \ x^4 \ \left(17 \ y^2 + z^2\right) + 10 \ x^2 \ \left(8 \ y^4 + 3 \ y^2 \ z^2\right)\right)$	$-\frac{3}{8}\sqrt{7}xy\left(35x^4+31y^4+20y^2z^2-10x^2\left(11y^2+2z^2\right)\right)$
-4	$\frac{3}{4} \sqrt{\frac{35}{2}} \times z \left(7 x^4 + 23 y^4 + 12 y^2 z^2 - 2 x^2 \left(29 y^2 + 2 z^2\right)\right)$	$-3  \sqrt{\frac{35}{2}}  y  z  \left( 8  x^4 + y^2  \left( y^2 + z^2 \right)  -  x^2  \left( 13  y^2 + 3  z^2 \right) \right)$
- 3	$-\frac{_{3}}{^{8}}\sqrt{35}\left(2x^{6}+y^{6}-7y^{4}z^{2}-8y^{2}z^{4}-x^{4}\left(7y^{2}+23z^{2}\right)+x^{2}\left(-8y^{4}+90y^{2}z^{2}+8z^{4}\right)\right)$	$\frac{_{3}}{^{8}}\sqrt{35}xy\left(7x^{4}-5y^{4}+44y^{2}z^{2}+16z^{4}+2x^{2}\left(y^{2}-38z^{2}\right)\right)$
- 2	$\frac{1}{2}  \sqrt{ \frac{105}{2}}    x   z  \left( - 7   x^4  +  11   y^4  -  26   y^2   z^2  -  4   z^4  +  x^2   \left( 4   y^2  +  22   z^2 \right)  \right)$	$\sqrt{\frac{_{105}}{^{2}}}yz\left(8x^{4}-y^{4}+y^{2}z^{2}+2z^{4}+x^{2}\left(7y^{2}-23z^{2}\right)\right)$
-1	$\frac{1}{4} \sqrt{\frac{15}{2}} \left( 6 \ x^6 - y^6 + 11 \ y^4 \ z^2 + 4 \ y^2 \ z^4 - 8 \ z^6 + x^4 \ \left( 11 \ y^2 - 101 \ z^2 \right) \ + 2 \ x^2 \ \left( 2 \ y^4 - 45 \ y^2 \ z^2 + 58 \ z^4 \right) \right)$	$-\frac{7}{4}\sqrt{\frac{15}{2}}\   xy\left(x^4+y^4-16y^2z^2+16z^4+2x^2\left(y^2-8z^2\right)\right)$
0	$\frac{21}{4}$ x z $\left(5 x^4 + 5 y^4 - 20 y^2 z^2 + 8 z^4 + 10 x^2 (y^2 - 2 z^2)\right)$	0
1	$\frac{1}{4}  \sqrt{\frac{15}{2}}  \left( -6  x^6 + y^6 - 11  y^4  z^2 - 4  y^2  z^4 + 8  z^6 + x^4  \left( -11  y^2 + 101  z^2 \right)  - 2  x^2  \left( 2  y^4 - 45  y^2  z^2 + 58  z^4 \right) \right)$	$-\frac{7}{4}\sqrt{\frac{15}{2}}xy\left(x^{4}+y^{4}-16y^{2}z^{2}+16z^{4}+2x^{2}\left(y^{2}-8z^{2}\right)\right)$
2	$\frac{1}{2}  \sqrt{\frac{105}{2}}   \times  z  \left( - 7   x^4  +  11  y^4  -  26  y^2   z^2  -  4   z^4  +  x^2  \left( 4   y^2  +  22   z^2 \right)  \right)$	$\sqrt{ \frac{_{105}}{^{2}}} \;\; y \; z \; \left( - 8 \; x^{4}  +  y^{4}  -  y^{2} \; z^{2}  -  2 \; z^{4}  +  x^{2} \; \left( - 7 \; y^{2}  +  23 \; z^{2} \right)  \right)$
3	$\frac{3}{8}  \sqrt{35}  \left(2  x^6 + y^6 - 7  y^4  z^2 - 8  y^2  z^4 - x^4  \left(7  y^2 + 23  z^2\right)  +  x^2  \left(-8  y^4 + 90  y^2  z^2 + 8  z^4\right)\right)$	$\frac{_{3}}{^{8}}\sqrt{35}xy\left(7x^{4}-5y^{4}+44y^{2}z^{2}+16z^{4}+2x^{2}\left(y^{2}-38z^{2}\right)\right)$
4	$\frac{3}{4} \sqrt{\frac{35}{2}} \times z \left(7 x^4 + 23 y^4 + 12 y^2 z^2 - 2 x^2 \left(29 y^2 + 2 z^2\right)\right)$	$3\sqrt{\frac{35}{2}}$ y z $\left(8 x^4 + y^2 \left(y^2 + z^2\right) - x^2 \left(13 y^2 + 3 z^2\right)\right)$
5	$-\frac{_{3}}{^{8}}\sqrt{7}\left(6x^{6}-5y^{4}\left(y^{2}+z^{2}\right)-5x^{4}\left(17y^{2}+z^{2}\right)+10x^{2}\left(8y^{4}+3y^{2}z^{2}\right)\right)$	$-\frac{_{3}^{^{\prime}}}{^{8}}\sqrt{7}xy\left(35x^{4}+31y^{4}+20y^{2}z^{2}-10x^{2}\left(11y^{2}+2z^{2}\right)\right)$

n=5 By  $(A5/r^{13})$ :

### get\_xyz\_field.nb | **9**

	Re	Im
- 5	$\frac{3}{8}  \sqrt{7}   x  y  \left(31  x^4 + 5  y^2  \left(7  y^2 - 4  z^2\right)  + x^2  \left(-110  y^2 + 20  z^2\right)\right)$	$\frac{3}{8}  \sqrt{7}  \left(5  x^6 - 6  y^6 + 5  y^4  z^2 + x^4  \left(-80  y^2 + 5  z^2\right) + 5  x^2  \left(17  y^4 - 6  y^2  z^2\right)\right)$
- 4	$\frac{3}{4} \sqrt{\frac{35}{2}} y z \left(23 x^4 + 7 y^4 - 4 y^2 z^2 + x^2 \left(-58 y^2 + 12 z^2\right)\right)$	$3\sqrt{\frac{35}{2}} \times z \left(x^4 + 8y^4 - 3y^2z^2 + x^2\left(-13y^2 + z^2\right)\right)$
3	$-\frac{_{3}}{^{8}}\sqrt{35}xy\left(5x^{4}-7y^{4}+76y^{2}z^{2}-16z^{4}-2x^{2}\left(y^{2}+22z^{2}\right)\right)$	$-\frac{_{3}^{^{2}}}{^{8}}\sqrt{35}\left(x^{6}+2y^{6}-23y^{4}z^{2}+8y^{2}z^{4}-x^{4}\left(8y^{2}+7z^{2}\right)\right.\\ \left.+x^{2}\left(-7y^{4}+90y^{2}z^{2}-8z^{4}\right)\right)$
2	$\frac{1}{2} \ \sqrt{\frac{105}{2}} \ y \ z \ \left(-11 \ x^4 + 7 \ y^4 - 22 \ y^2 \ z^2 + 4 \ z^4 + x^2 \ \left(-4 \ y^2 + 26 \ z^2\right)\right)$	$\sqrt{\frac{_{105}}{^{2}}}xz\left(-x^{4}+8y^{4}-23y^{2}z^{2}+2z^{4}+x^{2}\left(7y^{2}+z^{2}\right)\right)$
1	$\frac{7}{4}  \sqrt{\frac{15}{2}}   x  y  \left( x^4 + y^4 - 16  y^2  z^2 + 16  z^4 + 2  x^2  \left( y^2 - 8  z^2 \right) \right)$	$\frac{1}{4}  \sqrt{\frac{15}{2}}  \left(  x^6  -  6   y^6  +  101   y^4   z^2  -  116   y^2   z^4  +  8   z^6  -  x^4   \left(  4   y^2  +  11   z^2 \right)  +  x^2   \left(  -  11   y^4  +  90   y^2   z^2  -  4   z^4 \right)  \right)$
	$\frac{21}{4} \ y \ z \ \left(5 \ x^4 + 5 \ y^4 - 20 \ y^2 \ z^2 + 8 \ z^4 + 10 \ x^2 \ \left(y^2 - 2 \ z^2\right)\right)$	0
	$-\frac{7}{4}\sqrt{\frac{15}{2}}xy\left(x^4+y^4-16y^2z^2+16z^4+2x^2\left(y^2-8z^2\right)\right)$	$\frac{1}{4} \ \sqrt{\frac{15}{2}} \ \left(x^6 - 6 \ y^6 + 101 \ y^4 \ z^2 - 116 \ y^2 \ z^4 + 8 \ z^6 - x^4 \ \left(4 \ y^2 + 11 \ z^2\right) \ + \ x^2 \ \left(-11 \ y^4 + 90 \ y^2 \ z^2 - 4 \ z^4\right)\right)$
	$\frac{1}{2} \ \sqrt{\frac{105}{2}} \ y \ z \ \left(-11 \ x^4 + 7 \ y^4 - 22 \ y^2 \ z^2 + 4 \ z^4 + x^2 \ \left(-4 \ y^2 + 26 \ z^2\right)\right)$	$\sqrt{\frac{105}{2}} \times z \left(x^4 - 8 y^4 + 23 y^2 z^2 - 2 z^4 - x^2 (7 y^2 + z^2)\right)$
	$\frac{3}{8} \sqrt{35} \ x \ y \ \left(5 \ x^4 - 7 \ y^4 + 76 \ y^2 \ z^2 - 16 \ z^4 - 2 \ x^2 \ \left(y^2 + 22 \ z^2\right)\right)$	$-\frac{3}{8} \sqrt{35} \left(x^6 + 2 \ y^6 - 23 \ y^4 \ z^2 + 8 \ y^2 \ z^4 - x^4 \ \left(8 \ y^2 + 7 \ z^2\right) \right. \\ \left. + \ x^2 \left(-7 \ y^4 + 90 \ y^2 \ z^2 - 8 \ z^4\right)\right)$
	$\frac{3}{4}  \sqrt{\frac{35}{2}}  y  z  \left(23  x^4 + 7  y^4 - 4  y^2  z^2 + x^2  \left(-58  y^2 + 12  z^2\right)\right)$	$-3\sqrt{\frac{35}{2}}$ x z $\left(x^4 + 8y^4 - 3y^2z^2 + x^2\left(-13y^2 + z^2\right)\right)$
	$-\frac{_{3}}{^{8}}\sqrt{7}xy\left(31x^{4}+5y^{2}\left(7y^{2}-4z^{2}\right)+x^{2}\left(-110y^{2}+20z^{2}\right)\right)$	$\frac{_{3}}{^{8}}\sqrt[4]{7}\left(5x^{6}-6y^{6}+5y^{4}z^{2}+x^{4}\left(-80y^{2}+5z^{2}\right)+5x^{2}\left(17y^{4}-6y^{2}z^{2}\right)\right)$

### $n=5 Bz(A5/r^{13})$ :

	Re	Im
- 5	$\frac{33}{8} \sqrt{7} \times (x^4 - 10 \times x^2 y^2 + 5 y^4) z$	$-\frac{33}{8}\sqrt{7}$ y $\left(5 x^4 - 10 x^2 y^2 + y^4\right)$ z
-4	$-\frac{3}{4}\sqrt{\frac{35}{2}}\left(x^4-6\ x^2\ y^2+y^4\right)\ \left(x^2+y^2-10\ z^2\right)$	$3\sqrt{\frac{35}{2}} \times y (x^2 - y^2) (x^2 + y^2 - 10 z^2)$
- 3	$-\frac{9}{8}\sqrt{35} x \left(x^2 - 3y^2\right) z \left(3x^2 + 3y^2 - 8z^2\right)$	$-\frac{9}{8}\sqrt{35}y\left(-3x^2+y^2\right)z\left(3x^2+3y^2-8z^2\right)$
- 2	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$-\sqrt{\frac{105}{2}} \ x \ y \ \left(x^4 + y^4 - 16 \ y^2 \ z^2 + 16 \ z^4 + 2 \ x^2 \ \left(y^2 - 8 \ z^2\right)\right)$
-1	$ \frac{7}{4} \sqrt{\frac{15}{2}} \times z \left( 5 \times^4 + 5 y^4 - 20 y^2 z^2 + 8 z^4 + 10 x^2 (y^2 - 2 z^2) \right) $	$-\frac{7}{4}\sqrt{\frac{15}{2}}yz\left(5x^4+5y^4-20y^2z^2+8z^4+10x^2\left(y^2-2z^2\right)\right)$
0	$-\frac{3}{4} \left(5  x^6 + 5  y^6 - 90  y^4  z^2 + 120  y^2  z^4 - 16  z^6 + 15  x^4  \left(y^2 - 6  z^2\right) \right. \\ \left. + 15  x^2  \left(y^4 - 12  y^2  z^2 + 8  z^4\right)\right)$	0
1	$-\frac{7}{4} \sqrt{\frac{15}{2}} \times z \left(5 x^4 + 5 y^4 - 20 y^2 z^2 + 8 z^4 + 10 x^2 (y^2 - 2 z^2)\right)$	$-\frac{7}{4}\sqrt{\frac{15}{2}}\ y\ z\ \left(5\ x^4+5\ y^4-20\ y^2\ z^2+8\ z^4+10\ x^2\ \left(y^2-2\ z^2\right)\right)$
2	$ \frac{1}{2} \sqrt{\frac{105}{2}} \left( x^2 - y^2 \right) \left( x^4 + y^4 - 16 \ y^2 \ z^2 + 16 \ z^4 + 2 \ x^2 \left( y^2 - 8 \ z^2 \right) \right) $	$\sqrt{\frac{\text{105}}{2}} \ x \ y \ \left( x^4 + y^4 - 16 \ y^2 \ z^2 + 16 \ z^4 + 2 \ x^2 \ \left( y^2 - 8 \ z^2 \right) \right)$
3	$\frac{9}{8} \sqrt{35} \times (x^2 - 3y^2) z (3x^2 + 3y^2 - 8z^2)$	$-\frac{9}{8}\sqrt{35}$ y $\left(-3 x^2 + y^2\right)$ z $\left(3 x^2 + 3 y^2 - 8 z^2\right)$
4	$ -\frac{3}{4} \sqrt{\frac{35}{2}} \left( x^4 - 6 x^2 y^2 + y^4 \right) \left( x^2 + y^2 - 10 z^2 \right) $	$-3\sqrt{\frac{35}{2}}$ x y $(x^2 - y^2)$ $(x^2 + y^2 - 10 z^2)$
5	$-\frac{33}{8}\sqrt[7]{7} \times (x^4 - 10 x^2 y^2 + 5 y^4) z$	$-\frac{33}{8}\sqrt{7}$ y $\left(5 x^4 - 10 x^2 y^2 + y^4\right)$ z

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 $n=6 \ Bx(A6/r^{15})$ :

	Re	Im
- 6	$\sqrt{\frac{33}{2}} \ x \ \left(7 \ x^6 - 43 \ y^6 - 30 \ y^4 \ z^2 - 3 \ x^4 \ \left(47 \ y^2 + 2 \ z^2\right) \ + 15 \ x^2 \ \left(15 \ y^4 + 4 \ y^2 \ z^2\right)\right)$	$\sqrt{66} \ y \ \left(-24 \ x^6 + 3 \ y^4 \ \left(y^2 + z^2\right) + 5 \ x^4 \ \left(23 \ y^2 + 3 \ z^2\right) - 6 \ x^2 \ \left(11 \ y^4 + 5 \ y^2 \ z^2\right)\right)$
- 5 - 4 - 3	$\begin{array}{c} \sqrt[3]{\sqrt{22}} \ z \ \left(8 \ x^6 - 5 \ y^4 \ \left(y^2 + z^2\right) + 30 \ x^2 \ y^2 \ \left(3 \ y^2 + z^2\right) - 5 \ x^4 \ \left(21 \ y^2 + z^2\right)\right) \\ -3 \ x \ \left(7 \ x^6 + 23 \ y^6 - 240 \ y^4 \ z^2 - 120 \ y^2 \ z^4 - 3 \ x^4 \ \left(17 \ y^2 + 32 \ z^2\right) + x^2 \ \left(-35 \ y^4 + 720 \ y^2 \ z^2 + 40 \ z^4\right)\right) \\ \sqrt{30} \ z \ \left(-24 \ x^6 - 9 \ y^6 + 15 \ y^4 \ z^2 + 24 \ y^2 \ z^4 + x^4 \ \left(75 \ y^2 + 95 \ z^2\right) + 6 \ x^2 \ \left(15 \ y^4 - 55 \ y^2 \ z^2 - 4 \ z^4\right)\right) \end{array}$	$\begin{array}{l} -3\sqrt{22}xyz\left(45x^4+33y^4+20y^2z^2-10x^2\left(13y^2+2z^2\right)\right) \\ 12y\left(8x^6+y^6-9y^4z^2-10y^2z^4-5x^4\left(y^2+21z^2\right)-6x^2\left(2y^4-25y^2z^2-5z^4\right)\right) \\ \sqrt{30}xyz\left(81x^4-51y^4+140y^2z^2+48z^4+30x^2\left(y^2-10z^2\right)\right) \end{array}$
- 2	$\sqrt{\frac{15}{2}} \ x \ \left(7 \ x^6 - 11 \ y^6 + 210 \ y^4 \ z^2 - 240 \ y^2 \ z^4 - 32 \ z^6 + 3 \ x^4 \ \left(y^2 - 50 \ z^2\right) - 15 \ x^2 \ \left(y^4 - 4 \ y^2 \ z^2 - 16 \ z^4\right)\right)$	$\sqrt{30}\ y\ \left(-8\ x^{6}+y^{6}-15\ y^{4}\ z^{2}+16\ z^{6}-15\ x^{4}\ \left(y^{2}-11\ z^{2}\right)-6\ x^{2}\ \left(y^{4}-25\ y^{2}\ z^{2}+40\ z^{4}\right)\right)$
- 1	$\begin{array}{c} \sqrt{2} & \sqrt{3} & z & \left(40 \ x^6 - 5 \ y^6 + 15 \ y^4 \ z^2 + 12 \ y^2 \ z^4 - 8 \ z^6 + 75 \ x^4 \ \left(y^2 - 3 \ z^2\right) + 6 \ x^2 \ \left(5 \ y^4 - 35 \ y^2 \ z^2 + 26 \ z^4\right)\right) \\ -\sqrt{14} & x & \left(5 \ x^6 + 5 \ y^6 - 120 \ y^4 \ z^2 + 240 \ y^2 \ z^4 - 64 \ z^6 + 15 \ x^4 \ \left(y^2 - 8 \ z^2\right) + 15 \ x^2 \ \left(y^4 - 16 \ y^2 \ z^2 + 16 \ z^4\right)\right) \\ -2\sqrt{3} & z & \left(40 \ x^6 - 5 \ y^6 + 15 \ y^4 \ z^2 + 12 \ y^2 \ z^4 - 8 \ z^6 + 75 \ x^4 \ \left(y^2 - 3 \ z^2\right) + 6 \ x^2 \ \left(5 \ y^4 - 35 \ y^2 \ z^2 + 26 \ z^4\right)\right) \end{array}$	$\begin{array}{l} -6\sqrt{3}xyz\left(15x^4+15y^4-80y^2z^2+48z^4+10x^2\left(3y^2-8z^2\right)\right)\\ \\ 0\\ -6\sqrt{3}xyz\left(15x^4+15y^4-80y^2z^2+48z^4+10x^2\left(3y^2-8z^2\right)\right) \end{array}$
2	$\sqrt{\frac{15}{2}} \ x \ \left(7 \ x^6 - 11 \ y^6 + 210 \ y^4 \ z^2 - 240 \ y^2 \ z^4 - 32 \ z^6 + 3 \ x^4 \ \left(y^2 - 50 \ z^2\right) - 15 \ x^2 \ \left(y^4 - 4 \ y^2 \ z^2 - 16 \ z^4\right)\right)$	$\sqrt{30}\ y\ \left(8\ x^{6}-y^{6}+15\ y^{4}\ z^{2}-16\ z^{6}+15\ x^{4}\ \left(y^{2}-11\ z^{2}\right)\right.\\ \left.+6\ x^{2}\ \left(y^{4}-25\ y^{2}\ z^{2}+40\ z^{4}\right)\right)$
3	$\begin{array}{l} \sqrt{30} \ z \ \left(24 \ x^6 - 5 \ x^4 \ \left(15 \ y^2 + 19 \ z^2\right) + 3 \ y^2 \ \left(3 \ y^4 - 5 \ y^2 \ z^2 - 8 \ z^4\right) + x^2 \ \left(-90 \ y^4 + 330 \ y^2 \ z^2 + 24 \ z^4\right)\right) \\ -3 \ x \ \left(7 \ x^6 + 23 \ y^6 - 240 \ y^4 \ z^2 - 120 \ y^2 \ z^4 - 3 \ x^4 \ \left(17 \ y^2 + 32 \ z^2\right) + x^2 \ \left(-35 \ y^4 + 720 \ y^2 \ z^2 + 40 \ z^4\right)\right) \\ -3 \ \sqrt{22} \ z \ \left(8 \ x^6 - 5 \ y^4 \ \left(y^2 + z^2\right) + 30 \ x^2 \ y^2 \ \left(3 \ y^2 + z^2\right) - 5 \ x^4 \ \left(21 \ y^2 + z^2\right)\right) \end{array}$	$\begin{array}{l} \sqrt{30} \ \ x \ y \ z \ \left(81 \ x^4 - 51 \ y^4 + 140 \ y^2 \ z^2 + 48 \ z^4 + 30 \ x^2 \ \left(y^2 - 10 \ z^2\right)\right) \\ -12 \ y \ \left(8 \ x^6 + y^6 - 9 \ y^4 \ z^2 - 10 \ y^2 \ z^4 - 5 \ x^4 \ \left(y^2 + 21 \ z^2\right) - 6 \ x^2 \ \left(2 \ y^4 - 25 \ y^2 \ z^2 - 5 \ z^4\right)\right) \\ -3 \ \sqrt{22} \ \ x \ y \ z \ \left(45 \ x^4 + 33 \ y^4 + 20 \ y^2 \ z^2 - 10 \ x^2 \ \left(13 \ y^2 + 2 \ z^2\right)\right) \end{array}$
5	$\sqrt{\frac{33}{2}} \ x \left( 7 \ x^6 - 43 \ y^6 - 30 \ y^4 \ z^2 - 3 \ x^4 \ \left( 47 \ y^2 + 2 \ z^2 \right) \right. \\ \left. + 15 \ x^2 \ \left( 15 \ y^4 + 4 \ y^2 \ z^2 \right) \right)$	$\sqrt{66}\ y\ \left(24\ x^{6}-3\ y^{4}\ \left(y^{2}+z^{2}\right)-5\ x^{4}\ \left(23\ y^{2}+3\ z^{2}\right)+6\ x^{2}\ \left(11\ y^{4}+5\ y^{2}\ z^{2}\right)\right)$
	V	
	y (A6/r^15):  Re	Im
i=6 B	y(A6/r^15):	
6 5 4	y (A6/r^15):  Re	Im
l	y (A6/r^15): Re $ \frac{\sqrt{\frac{33}{2}} \ y \ \left(43 \ x^6 - 7 \ y^6 + 6 \ y^4 \ z^2 + x^4 \ \left(-225 \ y^2 + 30 \ z^2\right) + 3 \ x^2 \ \left(47 \ y^4 - 20 \ y^2 \ z^2\right)\right) }{3 \ \sqrt{22} \ x \ y \ z \ \left(33 \ x^4 + 5 \ y^2 \ \left(9 \ y^2 - 4 \ z^2\right) + x^2 \ \left(-130 \ y^2 + 20 \ z^2\right)\right) } \\ -3 \ y \ \left(23 \ x^6 + 7 \ y^6 - 96 \ y^4 \ z^2 + 40 \ y^2 \ z^4 - 5 \ x^4 \ \left(7 \ y^2 + 48 \ z^2\right) - 3 \ x^2 \ \left(17 \ y^4 - 240 \ y^2 \ z^2 + 40 \ z^4\right)\right) } \\ \sqrt{30} \ x \ y \ z \ \left(-51 \ x^4 + 81 \ y^4 - 300 \ y^2 \ z^2 + 48 \ z^4 + 10 \ x^2 \ \left(3 \ y^2 + 14 \ z^2\right)\right) }$	Im $ \sqrt{66} \times \left(3 \times ^6 - 24 \text{ y}^6 + 15 \text{ y}^4 \text{ z}^2 + \text{x}^4 \left(-66 \text{ y}^2 + 3 \text{ z}^2\right) + 5 \text{ x}^2 \left(23 \text{ y}^4 - 6 \text{ y}^2 \text{ z}^2\right)\right) \\ 3 \sqrt{22} \times \left(5 \times ^6 - 8 \text{ y}^6 + 5 \text{ y}^4 \text{ z}^2 + \text{x}^4 \left(-90 \text{ y}^2 + 5 \text{ z}^2\right) + 15 \text{ x}^2 \left(7 \text{ y}^4 - 2 \text{ y}^2 \text{ z}^2\right)\right) \\ -12 \times \left(\times ^6 + 8 \text{ y}^6 - 105 \text{ y}^4 \text{ z}^2 + 30 \text{ y}^2 \text{ z}^4 - 3 \text{ x}^4 \left(4 \text{ y}^2 + 3 \text{ z}^2\right) - 5 \text{ x}^2 \left(\text{y}^4 - 30 \text{ y}^2 \text{ z}^2 + 2 \text{ z}^4\right)\right) $
-6 -5 -4 -3	y (A6/r^15): Re $ \sqrt{\frac{33}{2}} \text{ y } \left(43 \text{ x}^6 - 7 \text{ y}^6 + 6 \text{ y}^4 \text{ z}^2 + \text{ x}^4 \left(-225 \text{ y}^2 + 30 \text{ z}^2\right) + 3 \text{ x}^2 \left(47 \text{ y}^4 - 20 \text{ y}^2 \text{ z}^2\right)\right) $ $ 3 \sqrt{22} \text{ x y z } \left(33 \text{ x}^4 + 5 \text{ y}^2 \left(9 \text{ y}^2 - 4 \text{ z}^2\right) + \text{x}^2 \left(-130 \text{ y}^2 + 20 \text{ z}^2\right)\right) $ $ -3 \text{ y } \left(23 \text{ x}^6 + 7 \text{ y}^6 - 96 \text{ y}^4 \text{ z}^2 + 40 \text{ y}^2 \text{ z}^4 - 5 \text{ x}^4 \left(7 \text{ y}^2 + 48 \text{ z}^2\right) - 3 \text{ x}^2 \left(17 \text{ y}^4 - 240 \text{ y}^2 \text{ z}^2 + 40 \text{ z}^4\right)\right) $	Im
6 5 4 3 2 1	$ \begin{array}{l} \text{Re} \\ \hline \sqrt{\frac{33}{2}} \ y \ \left( 43  x^6 - 7  y^6 + 6  y^4  z^2 + x^4  \left( -225  y^2 + 30  z^2 \right) + 3  x^2  \left( 47  y^4 - 20  y^2  z^2 \right) \right) \\ 3  \sqrt{22} \ x  y  z  \left( 33  x^4 + 5  y^2  \left( 9  y^2 - 4  z^2 \right) + x^2  \left( -130  y^2 + 20  z^2 \right) \right) \\ -3  y  \left( 23  x^6 + 7  y^6 - 96  y^4  z^2 + 40  y^2  z^4 - 5  x^4  \left( 7  y^2 + 48  z^2 \right) - 3  x^2  \left( 17  y^4 - 240  y^2  z^2 + 40  z^4 \right) \right) \\ \sqrt{30} \ x  y  z  \left( -51  x^4 + 81  y^4 - 300  y^2  z^2 + 48  z^4 + 10  x^2  \left( 3  y^2 + 14  z^2 \right) \right) \\ \sqrt{\frac{15}{2}} \ y  \left( 11  x^6 - 7  y^6 + 150  y^4  z^2 - 240  y^2  z^4 + 32  z^6 + 15  x^4  \left( y^2 - 14  z^2 \right) - 3  x^2  \left( y^4 + 20  y^2  z^2 - 80  z^4 \right) \right) \\ 6  \sqrt{3} \ x  y  z  \left( 15  x^4 + 15  y^4 - 80  y^2  z^2 + 48  z^4 + 10  x^2  \left( 3  y^2 - 8  z^2 \right) \right) \\ - \sqrt{14} \ y  \left( 5  x^6 + 5  y^6 - 120  y^4  z^2 + 240  y^2  z^4 - 64  z^6 + 15  x^4  \left( y^2 - 8  z^2 \right) + 15  x^2  \left( y^4 - 16  y^2  z^2 + 16  z^4 \right) \right) \end{array}$	Im $ \sqrt{66} \times \left(3 \times^6 - 24 y^6 + 15 y^4 z^2 + x^4 \left(-66 y^2 + 3 z^2\right) + 5 x^2 \left(23 y^4 - 6 y^2 z^2\right)\right) $ $ 3 \sqrt{22} z \left(5 x^6 - 8 y^6 + 5 y^4 z^2 + x^4 \left(-90 y^2 + 5 z^2\right) + 15 x^2 \left(7 y^4 - 2 y^2 z^2\right)\right) $ $ -12 x \left(x^6 + 8 y^6 - 105 y^4 z^2 + 30 y^2 z^4 - 3 x^4 \left(4 y^2 + 3 z^2\right) - 5 x^2 \left(y^4 - 30 y^2 z^2 + 2 z^4\right)\right) $ $ \sqrt{30} z \left(-9 x^6 - 24 y^6 + 95 y^4 z^2 - 24 y^2 z^4 + 15 x^4 \left(6 y^2 + z^2\right) + 3 x^2 \left(25 y^4 - 110 y^2 z^2 + 8 z^4\right)\right) $ $ \sqrt{30} x \left(x^6 - 8 y^6 + 165 y^4 z^2 - 240 y^2 z^4 + 16 z^6 - 3 x^4 \left(2 y^2 + 5 z^2\right) - 15 x^2 \left(y^4 - 10 y^2 z^2\right)\right) $ $ 2 \sqrt{3} z \left(5 x^6 - 40 y^6 + 225 y^4 z^2 - 156 y^2 z^4 + 8 z^6 - 15 x^4 \left(2 y^2 + z^2\right) - 3 x^2 \left(25 y^4 - 70 y^2 z^2 + 4 z^4 y^6\right) $
6 5 4 3	$ \begin{array}{l} \text{Re} \\ \hline \sqrt{\frac{33}{2}} \ \ y \ \left( 43  x^6 - 7  y^6 + 6  y^4  z^2 + x^4  \left( -225  y^2 + 30  z^2 \right) + 3  x^2  \left( 47  y^4 - 20  y^2  z^2 \right) \right) \\ 3  \sqrt{22} \ \ x  y  z \ \left( 33  x^4 + 5  y^2  \left( 9  y^2 - 4  z^2 \right) + x^2  \left( -130  y^2 + 20  z^2 \right) \right) \\ -3  y  \left( 23  x^6 + 7  y^6 - 96  y^4  z^2 + 40  y^2  z^4 - 5  x^4  \left( 7  y^2 + 48  z^2 \right) - 3  x^2  \left( 17  y^4 - 240  y^2  z^2 + 40  z^4 \right) \right) \\ \sqrt{30} \ \ x  y  z  \left( -51  x^4 + 81  y^4 - 300  y^2  z^2 + 48  z^4 + 10  x^2  \left( 3  y^2 + 14  z^2 \right) \right) \\ \sqrt{\frac{15}{2}} \ \ y  \left( 11  x^6 - 7  y^6 + 150  y^4  z^2 - 240  y^2  z^4 + 32  z^6 + 15  x^4  \left( y^2 - 14  z^2 \right) - 3  x^2  \left( y^4 + 20  y^2  z^2 - 80  z^4 \right) \right) \\ 6  \sqrt{3} \ \ x  y  z  \left( 15  x^4 + 15  y^4 - 80  y^2  z^2 + 48  z^4 + 10  x^2  \left( 3  y^2 - 8  z^2 \right) \right) \\ - \sqrt{14} \ \ \ y  \left( 5  x^6 + 5  y^6 - 120  y^4  z^2 + 240  y^2  z^4 - 64  z^6 + 15  x^4  \left( y^2 - 8  z^2 \right) + 15  x^2  \left( y^4 - 16  y^2  z^2 + 16  z^4 \right) \right) \\ - 6  \sqrt{3} \ \ x  y  z  \left( 15  x^4 + 15  y^4 - 80  y^2  z^2 + 48  z^4 + 10  x^2  \left( 3  y^2 - 8  z^2 \right) \right) \end{array}$	Im $ \sqrt{66} \times \left(3 x^6 - 24 y^6 + 15 y^4 z^2 + x^4 \left(-66 y^2 + 3 z^2\right) + 5 x^2 \left(23 y^4 - 6 y^2 z^2\right)\right) \\ 3 \sqrt{22} z \left(5 x^6 - 8 y^6 + 5 y^4 z^2 + x^4 \left(-90 y^2 + 5 z^2\right) + 15 x^2 \left(7 y^4 - 2 y^2 z^2\right)\right) \\ -12 x \left(x^6 + 8 y^6 - 105 y^4 z^2 + 30 y^2 z^4 - 3 x^4 \left(4 y^2 + 3 z^2\right) - 5 x^2 \left(y^4 - 30 y^2 z^2 + 2 z^4\right)\right) \\ \sqrt{30} z \left(-9 x^6 - 24 y^6 + 95 y^4 z^2 - 24 y^2 z^4 + 15 x^4 \left(6 y^2 + z^2\right) + 3 x^2 \left(25 y^4 - 110 y^2 z^2 + 8 z^4\right)\right) \\ \sqrt{30} x \left(x^6 - 8 y^6 + 165 y^4 z^2 - 240 y^2 z^4 + 16 z^6 - 3 x^4 \left(2 y^2 + 5 z^2\right) - 15 x^2 \left(y^4 - 10 y^2 z^2\right)\right) \\ 2 \sqrt{3} z \left(5 x^6 - 40 y^6 + 225 y^4 z^2 - 156 y^2 z^4 + 8 z^6 - 15 x^4 \left(2 y^2 + z^2\right) - 3 x^2 \left(25 y^4 - 70 y^2 z^2 + 4 z^4\right) \\ 0 \\ 2 \sqrt{3} z \left(5 x^6 - 40 y^6 + 225 y^4 z^2 - 156 y^2 z^4 + 8 z^6 - 15 x^4 \left(2 y^2 + z^2\right) - 3 x^2 \left(25 y^4 - 70 y^2 z^2 + 4 z^4\right) \\ 0 \\ 2 \sqrt{3} z \left(5 x^6 - 40 y^6 + 225 y^4 z^2 - 156 y^2 z^4 + 8 z^6 - 15 x^4 \left(2 y^2 + z^2\right) - 3 x^2 \left(25 y^4 - 70 y^2 z^2 + 4 z^4\right) \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$
6 5 4 3 2 1	$ \begin{array}{l} \text{Re} \\ \hline \sqrt{\frac{33}{2}} \ y \ \left( 43  x^6 - 7  y^6 + 6  y^4  z^2 + x^4  \left( -225  y^2 + 30  z^2 \right) + 3  x^2  \left( 47  y^4 - 20  y^2  z^2 \right) \right) \\ 3  \sqrt{22} \ x  y  z  \left( 33  x^4 + 5  y^2  \left( 9  y^2 - 4  z^2 \right) + x^2  \left( -130  y^2 + 20  z^2 \right) \right) \\ -3  y  \left( 23  x^6 + 7  y^6 - 96  y^4  z^2 + 40  y^2  z^4 - 5  x^4  \left( 7  y^2 + 48  z^2 \right) - 3  x^2  \left( 17  y^4 - 240  y^2  z^2 + 40  z^4 \right) \right) \\ \sqrt{30} \ x  y  z  \left( -51  x^4 + 81  y^4 - 300  y^2  z^2 + 48  z^4 + 10  x^2  \left( 3  y^2 + 14  z^2 \right) \right) \\ \sqrt{\frac{15}{2}} \ y  \left( 11  x^6 - 7  y^6 + 150  y^4  z^2 - 240  y^2  z^4 + 32  z^6 + 15  x^4  \left( y^2 - 14  z^2 \right) - 3  x^2  \left( y^4 + 20  y^2  z^2 - 80  z^4 \right) \right) \\ 6  \sqrt{3} \ x  y  z  \left( 15  x^4 + 15  y^4 - 80  y^2  z^2 + 48  z^4 + 10  x^2  \left( 3  y^2 - 8  z^2 \right) \right) \\ - \sqrt{14} \ y  \left( 5  x^6 + 5  y^6 - 120  y^4  z^2 + 240  y^2  z^4 - 64  z^6 + 15  x^4  \left( y^2 - 8  z^2 \right) + 15  x^2  \left( y^4 - 16  y^2  z^2 + 16  z^4 \right) \right) \end{array}$	Im $ \sqrt{66} \times \left(3 \times^6 - 24 y^6 + 15 y^4 z^2 + x^4 \left(-66 y^2 + 3 z^2\right) + 5 x^2 \left(23 y^4 - 6 y^2 z^2\right)\right) $ $ 3 \sqrt{22} z \left(5 x^6 - 8 y^6 + 5 y^4 z^2 + x^4 \left(-90 y^2 + 5 z^2\right) + 15 x^2 \left(7 y^4 - 2 y^2 z^2\right)\right) $ $ -12 x \left(x^6 + 8 y^6 - 105 y^4 z^2 + 30 y^2 z^4 - 3 x^4 \left(4 y^2 + 3 z^2\right) - 5 x^2 \left(y^4 - 30 y^2 z^2 + 2 z^4\right)\right) $ $ \sqrt{30} z \left(-9 x^6 - 24 y^6 + 95 y^4 z^2 - 24 y^2 z^4 + 15 x^4 \left(6 y^2 + z^2\right) + 3 x^2 \left(25 y^4 - 110 y^2 z^2 + 8 z^4\right)\right) $ $ \sqrt{30} x \left(x^6 - 8 y^6 + 165 y^4 z^2 - 240 y^2 z^4 + 16 z^6 - 3 x^4 \left(2 y^2 + 5 z^2\right) - 15 x^2 \left(y^4 - 10 y^2 z^2\right)\right) $ $ 2 \sqrt{3} z \left(5 x^6 - 40 y^6 + 225 y^4 z^2 - 156 y^2 z^4 + 8 z^6 - 15 x^4 \left(2 y^2 + z^2\right) - 3 x^2 \left(25 y^4 - 70 y^2 z^2 + 4 z^4 y^6\right) $
-6 B	$ \begin{array}{l} \text{Re} \\ \hline \sqrt{\frac{33}{2}} \ \ y \ \left( 43  x^6 - 7  y^6 + 6  y^4  z^2 + x^4  \left( -225  y^2 + 30  z^2 \right) + 3  x^2  \left( 47  y^4 - 20  y^2  z^2 \right) \right) \\ 3  \sqrt{22} \ \ x  y  z \ \left( 33  x^4 + 5  y^2  \left( 9  y^2 - 4  z^2 \right) + x^2  \left( -130  y^2 + 20  z^2 \right) \right) \\ -3  y  \left( 23  x^6 + 7  y^6 - 96  y^4  z^2 + 40  y^2  z^4 - 5  x^4  \left( 7  y^2 + 48  z^2 \right) - 3  x^2  \left( 17  y^4 - 240  y^2  z^2 + 40  z^4 \right) \right) \\ \sqrt{30} \ \ x  y  z  \left( -51  x^4 + 81  y^4 - 300  y^2  z^2 + 48  z^4 + 10  x^2  \left( 3  y^2 + 14  z^2 \right) \right) \\ \sqrt{\frac{15}{2}} \ \ y  \left( 11  x^6 - 7  y^6 + 150  y^4  z^2 - 240  y^2  z^4 + 32  z^6 + 15  x^4  \left( y^2 - 14  z^2 \right) - 3  x^2  \left( y^4 + 20  y^2  z^2 - 80  z^4 \right) \right) \\ 6  \sqrt{3} \ \ x  y  z  \left( 15  x^4 + 15  y^4 - 80  y^2  z^2 + 48  z^4 + 10  x^2  \left( 3  y^2 - 8  z^2 \right) \right) \\ - \sqrt{14} \ \ \ y  \left( 5  x^6 + 5  y^6 - 120  y^4  z^2 + 240  y^2  z^4 - 64  z^6 + 15  x^4  \left( y^2 - 8  z^2 \right) + 15  x^2  \left( y^4 - 16  y^2  z^2 + 16  z^4 \right) \right) \\ - 6  \sqrt{3} \ \ x  y  z  \left( 15  x^4 + 15  y^4 - 80  y^2  z^2 + 48  z^4 + 10  x^2  \left( 3  y^2 - 8  z^2 \right) \right) \end{array}$	Im $ \sqrt{66} \times \left(3 x^6 - 24 y^6 + 15 y^4 z^2 + x^4 \left(-66 y^2 + 3 z^2\right) + 5 x^2 \left(23 y^4 - 6 y^2 z^2\right)\right) \\ 3 \sqrt{22} z \left(5 x^6 - 8 y^6 + 5 y^4 z^2 + x^4 \left(-90 y^2 + 5 z^2\right) + 15 x^2 \left(7 y^4 - 2 y^2 z^2\right)\right) \\ -12 x \left(x^6 + 8 y^6 - 105 y^4 z^2 + 30 y^2 z^4 - 3 x^4 \left(4 y^2 + 3 z^2\right) - 5 x^2 \left(y^4 - 30 y^2 z^2 + 2 z^4\right)\right) \\ \sqrt{30} z \left(-9 x^6 - 24 y^6 + 95 y^4 z^2 - 24 y^2 z^4 + 15 x^4 \left(6 y^2 + z^2\right) + 3 x^2 \left(25 y^4 - 110 y^2 z^2 + 8 z^4\right)\right) \\ \sqrt{30} x \left(x^6 - 8 y^6 + 165 y^4 z^2 - 240 y^2 z^4 + 16 z^6 - 3 x^4 \left(2 y^2 + 5 z^2\right) - 15 x^2 \left(y^4 - 10 y^2 z^2\right)\right) \\ 2 \sqrt{3} z \left(5 x^6 - 40 y^6 + 225 y^4 z^2 - 156 y^2 z^4 + 8 z^6 - 15 x^4 \left(2 y^2 + z^2\right) - 3 x^2 \left(25 y^4 - 70 y^2 z^2 + 4 z^4\right) \\ 0 \\ 2 \sqrt{3} z \left(5 x^6 - 40 y^6 + 225 y^4 z^2 - 156 y^2 z^4 + 8 z^6 - 15 x^4 \left(2 y^2 + z^2\right) - 3 x^2 \left(25 y^4 - 70 y^2 z^2 + 4 z^4\right) \\ 0 \\ 2 \sqrt{3} z \left(5 x^6 - 40 y^6 + 225 y^4 z^2 - 156 y^2 z^4 + 8 z^6 - 15 x^4 \left(2 y^2 + z^2\right) - 3 x^2 \left(25 y^4 - 70 y^2 z^2 + 4 z^4\right) \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$

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n=6 Bz(A6/r^15):

	Re	Im
- 6	$13 \sqrt{\frac{33}{2}} \left( x^6 - 15 x^4 y^2 + 15 x^2 y^4 - y^6 \right) z$	$-13 \sqrt{66} \ x \ y \ \left(3 \ x^4 - 10 \ x^2 \ y^2 + 3 \ y^4 \right) \ z$
- 5	$-3\sqrt{22} \times (x^4 - 10 \times x^2 y^2 + 5 y^4) (x^2 + y^2 - 12 z^2)$	$3\sqrt{22} y \left(5 x^4 - 10 x^2 y^2 + y^4\right) \left(x^2 + y^2 - 12 z^2\right)$
-4	$-33 (x^4 - 6 x^2 y^2 + y^4) z (3 x^2 + 3 y^2 - 10 z^2)$	132 x y $(x^2 - y^2)$ z $(3 x^2 + 3 y^2 - 10 z^2)$
-3	$\sqrt{30} \ x \ \left(x^2 - 3 \ y^2\right) \ \left(3 \ x^4 + 3 \ y^4 - 60 \ y^2 \ z^2 + 80 \ z^4 + 6 \ x^2 \ \left(y^2 - 10 \ z^2\right)\right)$	$\sqrt{30}\ y\ \left(-3\ x^2+y^2\right)\ \left(3\ x^4+3\ y^4-60\ y^2\ z^2+80\ z^4+6\ x^2\ \left(y^2-10\ z^2\right)\right)$
- 2		$-3\sqrt{30}xyz\left(15x^4+15y^4-80y^2z^2+48z^4+10x^2\left(3y^2-8z^2\right)\right)$
- 1	$-2\sqrt{3} \times \left(5 \times ^6 + 5 \times ^6 - 120 \times ^4 \times ^2 + 240 \times ^2 \times ^4 - 64 \times ^6 + 15 \times ^4 \times (y^2 - 8 \times ^2) + 15 \times ^2 \times (y^4 - 16 \times ^2 \times ^2 + 16 \times ^4)\right)$	$2\;\sqrt{3}\;\;y\;\left(5\;x^{6}+5\;y^{6}-120\;y^{4}\;z^{2}+240\;y^{2}\;z^{4}-64\;z^{6}+15\;x^{4}\;\left(y^{2}-8\;z^{2}\right)+15\;x^{2}\;\left(y^{4}-16\;y^{2}\;z^{2}+16\;z^{4}\right)\right)$
0	$\sqrt{14}$ z $\left(-35  x^6 - 35  y^6 + 210  y^4  z^2 - 168  y^2  z^4 + 16  z^6 - 105  x^4  \left(y^2 - 2  z^2\right) - 21  x^2  \left(5  y^4 - 20  y^2  z^2 + 8  z^4\right)\right)$	0
1	$2\;\sqrt{3}\;\;x\;\left(5\;x^{6}+5\;y^{6}-120\;y^{4}\;z^{2}+240\;y^{2}\;z^{4}-64\;z^{6}+15\;x^{4}\;\left(y^{2}-8\;z^{2}\right)\right.\\ \left.+15\;x^{2}\;\left(y^{4}-16\;y^{2}\;z^{2}+16\;z^{4}\right)\right)$	$2\;\sqrt{3}\;\;y\;\left(5\;x^{6}+5\;y^{6}-120\;y^{4}\;z^{2}+240\;y^{2}\;z^{4}-64\;z^{6}+15\;x^{4}\;\left(y^{2}-8\;z^{2}\right)\right.\\ \left.+15\;x^{2}\;\left(y^{4}-16\;y^{2}\;z^{2}+16\;z^{4}\right)\right)$
2		$3\ \sqrt{30}\ x\ y\ z\ \left(15\ x^4+15\ y^4-80\ y^2\ z^2+48\ z^4+10\ x^2\ \left(3\ y^2-8\ z^2\right)\right)$
3	$ -\sqrt{30} \times (x^2 - 3y^2) (3x^4 + 3y^4 - 60y^2z^2 + 80z^4 + 6x^2(y^2 - 10z^2)) $	$\sqrt{30}\ y\ \left(-3\ x^2+y^2\right)\ \left(3\ x^4+3\ y^4-60\ y^2\ z^2+80\ z^4+6\ x^2\ \left(y^2-10\ z^2\right)\right)$
4	$-33 (x^4 - 6 x^2 y^2 + y^4) z (3 x^2 + 3 y^2 - 10 z^2)$	$-132 \times y (x^2 - y^2) z (3 x^2 + 3 y^2 - 10 z^2)$
5	$3\sqrt{22} \times (x^4 - 10 x^2 y^2 + 5 y^4) (x^2 + y^2 - 12 z^2)$	$3\sqrt{22}\ y\left(5\ x^4-10\ x^2\ y^2+y^4 ight)\ \left(x^2+y^2-12\ z^2 ight)$
6	$13 \sqrt{\frac{33}{2}} \left( x^6 - 15 x^4 y^2 + 15 x^2 y^4 - y^6 \right) z$	13 $\sqrt{66}$ x y $(3 x^4 - 10 x^2 y^2 + 3 y^4)$ z

 $n=7 Bx (A7/r^17)$ :

get\_xyz\_field.nb | **11** 

	Re	Im
- 7	$\frac{1}{16}  \sqrt{\frac{429}{2}}  \left( 8  x^8 + 7  y^6  \left( y^2 + z^2 \right)  +  105  x^4  y^2  \left( 5  y^2 + z^2 \right)  -  7  x^6  \left( 31  y^2 + z^2 \right)  -  7  x^2  \left( 29  y^6 +  15  y^4  z^2 \right) \right)$	$\frac{1}{16}  \sqrt{\frac{429}{2}}  x  y  \left( -63  x^6 + 57  y^6 + 42  y^4  z^2 + 7  x^4  \left( 61  y^2 + 6  z^2 \right)  - 7  x^2  \left( 59  y^4 + 20  y^2  z^2 \right) \right)$
- 6	$\frac{3}{16} \sqrt{3003} \times z \left(3 \times ^6 - \times ^4 \left(57 \cdot y^2 + 2 \cdot z^2\right) + 5 \cdot x^2 \cdot \left(17 \cdot y^4 + 4 \cdot y^2 \cdot z^2\right) - 5 \cdot \left(3 \cdot y^6 + 2 \cdot y^4 \cdot z^2\right)\right)$	$\frac{3}{8}  \sqrt{3003}   y  z  \left( - 10  x^6 + y^4  \left( y^2 + z^2 \right)  +  5  x^4  \left( 9  y^2 + z^2 \right)  -  2  x^2  \left( 12  y^4 +  5  y^2  z^2 \right)  \right)$
- 5	$\frac{1}{16} \ \sqrt{\frac{231}{2}} \ \left(-8 \ x^8 + x^6 \ \left(97 \ y^2 + 127 \ z^2\right) + 5 \ y^4 \ \left(y^4 - 11 \ y^2 \ z^2 - 12 \ z^4\right) + 15 \ x^4 \ \left(y^4 - 103 \ y^2 \ z^2 - 4 \ z^4\right) + x^2 \ \left(-85 \ y^6 + 1185 \ y^4 \ z^2 + 360 \ y^2 \ z^4\right)\right)$	$\frac{1}{16}  \sqrt{\frac{231}{2}}  \ x  y  \left(45  x^6 + 33  y^6 - 402  y^4  z^2 - 240  y^2  z^4 - 5  x^4  \left(17  y^2 + 138  z^2\right)  +  x^2  \left(-97  y^4 + 1820  y^2  z^2 + 240  z^4\right)\right)$
- 4	$\frac{1}{8} \sqrt{\frac{231}{2}} \ x \ z \ \left(-27 \ x^6 + x^4 \ \left(183 \ y^2 + 128 \ z^2\right) \ + \ 5 \ x^2 \ \left(27 \ y^4 - 176 \ y^2 \ z^2 - 8 \ z^4\right) \ + \ 15 \ y^2 \ \left(-5 \ y^4 + 16 \ y^2 \ z^2 + 8 \ z^4\right)\right)$	$\frac{1}{2} \sqrt{\frac{231}{2}} \ y \ z \ \left(30 \ x^6 + 3 \ y^6 - 7 \ y^4 \ z^2 - 10 \ y^2 \ z^4 - 15 \ x^4 \ \left(y^2 + 9 \ z^2\right) \ + \ x^2 \ \left(-42 \ y^4 + 170 \ y^2 \ z^2 + 30 \ z^4\right)\right)$
- 3	$\frac{3}{16}\sqrt{\frac{21}{2}}\left(8x^8+3y^8-57y^6z^2+20y^4z^4+80y^2z^6-x^6\left(17y^2+207z^2\right)+x^4\left(-55y^4+585y^2z^2+420z^4\right)-x^2\left(27y^6-735y^4z^2+1320y^2z^4+80z^6\right)\right)$	$-\frac{3}{16}\sqrt{\frac{21}{2}}xy\left(27x^{6}-17y^{6}+378y^{4}z^{2}-480y^{2}z^{4}-160z^{6}+x^{4}\left(37y^{2}-678z^{2}\right)+x^{2}\left(-7y^{4}-300y^{2}z^{2}+1280z^{4}\right)\right)$
- 2	$\frac{1}{16} \sqrt{21} \times z \left(135 \times ^6 + x^4 \left(75 y^2 - 970 z^2\right) + x^2 \left(-255 y^4 + 260 y^2 z^2 + 944 z^4\right) - 3 \left(65 y^6 - 410 y^4 z^2 + 272 y^2 z^4 + 32 z^6\right)\right)$	$\frac{1}{8} \sqrt{21} \ y \ z \ \left(-150 \ x^6 + 15 \ y^6 - 65 \ y^4 \ z^2 - 32 \ y^2 \ z^4 + 48 \ z^6 - 15 \ x^4 \ \left(19 \ y^2 - 69 \ z^2\right) - 2 \ x^2 \ \left(60 \ y^4 - 485 \ y^2 \ z^2 + 456 \ z^4\right)\right)$
- 1	$-\frac{1}{16}\sqrt{\frac{7}{2}}\left(40x^8-5y^8+115y^6z^2-120y^4z^4-176y^2z^6+64z^8+5x^6\left(23y^2-247z^2\right)+15x^4\left(7y^4-157y^2z^2+232z^4\right)+x^2\left(25y^6-1005y^4z^2+3360y^2z^4-1616z^6\right)\right)$	$\frac{45}{16}\sqrt{\frac{7}{2}}xy\left(x^6+y^6-30y^4z^2+80y^2z^4-32z^6+3x^4\left(y^2-10z^2\right)+x^2\left(3y^4-60y^2z^2+80z^4\right)\right)$
0	$-\frac{9}{8} \times z \left(35 \times ^{6} + 35 \times ^{6} - 280 \times ^{4} \times ^{2} + 336 \times ^{2} \times ^{4} - 64 \times ^{6} + 35 \times ^{4} \times \left(3 \times ^{2} - 8 \times ^{2}\right) + 7 \times ^{2} \times \left(15 \times ^{4} - 80 \times ^{2} \times ^{2} + 48 \times ^{4}\right)\right)$	0
1	$\frac{1}{16}\sqrt{\frac{7}{2}}\left(40x^8-5y^8+115y^6z^2-120y^4z^4-176y^2z^6+64z^8+5x^6\left(23y^2-247z^2\right)+15x^4\left(7y^4-157y^2z^2+232z^4\right)+x^2\left(25y^6-1005y^4z^2+3360y^2z^4-1616z^6\right)\right)$	$\frac{45}{16}\sqrt{\frac{7}{2}}xy\left(x^6+y^6-30y^4z^2+80y^2z^4-32z^6+3x^4\left(y^2-10z^2\right)+x^2\left(3y^4-60y^2z^2+80z^4\right)\right)$
2	$\frac{1}{16} \sqrt{21} \times z \left(135 \times ^6 + x^4 \left(75 y^2 - 970 z^2\right) + x^2 \left(-255 y^4 + 260 y^2 z^2 + 944 z^4\right) - 3 \left(65 y^6 - 410 y^4 z^2 + 272 y^2 z^4 + 32 z^6\right)\right)$	$\frac{1}{8}\sqrt{21}yz\left(150x^{6}-15y^{6}+65y^{4}z^{2}+32y^{2}z^{4}-48z^{6}+15x^{4}\left(19y^{2}-69z^{2}\right)+2x^{2}\left(60y^{4}-485y^{2}z^{2}+456z^{4}\right)\right)$
3	$-\frac{3}{16}\sqrt{\frac{21}{2}}\left(8x^{8}+3y^{8}-57y^{6}z^{2}+20y^{4}z^{4}+80y^{2}z^{6}-x^{6}\left(17y^{2}+207z^{2}\right)+x^{4}\left(-55y^{4}+585y^{2}z^{2}+420z^{4}\right)-x^{2}\left(27y^{6}-735y^{4}z^{2}+1320y^{2}z^{4}+80z^{6}\right)\right)$	$-\frac{_{3}}{_{16}}\sqrt{\frac{_{21}}{^{2}}}xy\left(27x^{6}-17y^{6}+378y^{4}z^{2}-480y^{2}z^{4}-160z^{6}+x^{4}\left(37y^{2}-678z^{2}\right)+x^{2}\left(-7y^{4}-300y^{2}z^{2}+1280z^{4}\right)\right)$
4	$\frac{1}{8} \sqrt{\frac{231}{2}} \ x \ z \ \left(-27 \ x^6 + x^4 \ \left(183 \ y^2 + 128 \ z^2\right) \ + \ 5 \ x^2 \ \left(27 \ y^4 - 176 \ y^2 \ z^2 - 8 \ z^4\right) \ + \ 15 \ y^2 \ \left(-5 \ y^4 + 16 \ y^2 \ z^2 + 8 \ z^4\right)\right)$	$\frac{1}{2} \sqrt{\frac{231}{2}} \ y \ z \ \left(-30 \ x^6 - 3 \ y^6 + 7 \ y^4 \ z^2 + 10 \ y^2 \ z^4 + 15 \ x^4 \ \left(y^2 + 9 \ z^2\right) + 2 \ x^2 \ \left(21 \ y^4 - 85 \ y^2 \ z^2 - 15 \ z^4\right)\right)$
5	$\frac{1}{16} \sqrt{\frac{231}{2}} \left(8  x^8 - 5  y^8 + 55  y^6  z^2 + 60  y^4  z^4 - x^6  \left(97  y^2 + 127  z^2\right) - 15  x^4  \left(y^4 - 103  y^2  z^2 - 4  z^4\right) + 5  x^2  \left(17  y^6 - 237  y^4  z^2 - 72  y^2  z^4\right)\right)$	$\frac{1}{16}  \sqrt{\frac{231}{2}}  x  y  \left(45  x^6 + 33  y^6 - 402  y^4  z^2 - 240  y^2  z^4 - 5  x^4  \left(17  y^2 + 138  z^2\right)  +  x^2  \left(-97  y^4 + 1820  y^2  z^2 + 240  z^4\right)\right)$
6	$\frac{3}{16} \sqrt{3003} \times z \left(3 \times ^6 - \times ^4 \left(57 \cdot y^2 + 2 \cdot z^2\right) + 5 \cdot x^2 \cdot \left(17 \cdot y^4 + 4 \cdot y^2 \cdot z^2\right) - 5 \cdot \left(3 \cdot y^6 + 2 \cdot y^4 \cdot z^2\right)\right)$	$-\frac{3}{8}\sqrt{3003}yz\left(-10x^{6}+y^{4}\left(y^{2}+z^{2}\right)+5x^{4}\left(9y^{2}+z^{2}\right)-2x^{2}\left(12y^{4}+5y^{2}z^{2}\right)\right)$
7	$\frac{1}{16} \ \sqrt{\frac{429}{2}} \ \left(- 8 \ x^8 - 7 \ y^6 \ \left(y^2 + z^2\right) \ - \ 105 \ x^4 \ y^2 \ \left(5 \ y^2 + z^2\right) \ + \ 7 \ x^6 \ \left(31 \ y^2 + z^2\right) \ + \ 7 \ x^2 \ \left(29 \ y^6 + 15 \ y^4 \ z^2\right)\right)$	$\frac{1}{16}  \sqrt{\frac{429}{2}}    x   y  \left(  -  63   x^6  +  57   y^6  +  42   y^4   z^2  +  7   x^4   \left(  61   y^2  +  6   z^2  \right)  -  7   x^2   \left(  59   y^4  +  20   y^2   z^2  \right)  \right)$

 $n=7 \ By(A7/r^17)$ :



	Re Re	Im
-7	$ \frac{1}{16} \sqrt{\frac{429}{2}} \times y \left( 57 \times^6 - 63 y^6 + 42 y^4 z^2 - 7 x^4 \left( 59 y^2 - 6 z^2 \right) + 7 x^2 \left( 61 y^4 - 20 y^2 z^2 \right) \right) $	$\frac{1}{16}  \sqrt{\frac{429}{2}}  \left(7  x^8 + 8  y^8 - 7  y^6  z^2 + 7  x^6  \left(-29  y^2 + z^2\right)  +  105  x^4  \left(5  y^4 - y^2  z^2\right)  -  7  x^2  \left(31  y^6 - 15  y^4  z^2\right)\right)$
- 6	$ \frac{3}{16} \sqrt{3003} \ y \ z \ \left( 15 \ x^6 - 3 \ y^6 + 2 \ y^4 \ z^2 + x^4 \ \left( -85 \ y^2 + 10 \ z^2 \right) + x^2 \ \left( 57 \ y^4 - 20 \ y^2 \ z^2 \right) \right) $	$\frac{3}{8}\sqrt{3003}xz\left(x^{6}+x^{4}\left(-24y^{2}+z^{2}\right)+5y^{4}\left(-2y^{2}+z^{2}\right)+5x^{2}\left(9y^{4}-2y^{2}z^{2}\right)\right)$
- 5	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\frac{1}{16} \sqrt{\frac{231}{2}} \left( -5  x^8 + 8  y^8 - 127  y^6  z^2 + 60  y^4  z^4 + x^6  \left( 85  y^2 + 55  z^2 \right) - 15  x^4  \left( y^4 + 79  y^2  z^2 - 4  z^4 \right) + x^2  \left( -97  y^6 + 1545  y^4  z^2 - 360  y^2  z^4 \right) \right)$
- 4	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\frac{1}{2} \sqrt{\frac{231}{2}} \times z \left(-3 \times ^6 + 7 \times ^4 \left(6 y^2 + z^2\right) + 5 \times ^2 \left(3 y^4 - 34 y^2 z^2 + 2 z^4\right) - 15 \left(2 y^6 - 9 y^4 z^2 + 2 y^2 z^4\right)\right)$
- 3	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\frac{3}{16}\sqrt{\frac{21}{2}}\left(3x^8+8y^8-207y^6z^2+420y^4z^4-80y^2z^6-3x^6\left(9y^2+19z^2\right)+x^4\left(-55y^4+735y^2z^2+20z^4\right)+x^2\left(-17y^6+585y^4z^2-1320y^2z^4+80z^6\right)\right)$
- 2	$ \frac{1}{16} \sqrt[4]{21} \text{ y z } \left(195 \text{ x}^6 - 135 \text{ y}^6 + 970 \text{ y}^4 \text{ z}^2 - 944 \text{ y}^2 \text{ z}^4 + 96 \text{ z}^6 + 15 \text{ x}^4 \left(17 \text{ y}^2 - 82 \text{ z}^2\right) + \text{x}^2 \left(-75 \text{ y}^4 - 260 \text{ y}^2 \text{ z}^2 + 816 \text{ z}^4\right)\right) $	$\frac{1}{8}\sqrt{21}xz\left(15x^{6}-150y^{6}+1035y^{4}z^{2}-912y^{2}z^{4}+48z^{6}-5x^{4}\left(24y^{2}+13z^{2}\right)+x^{2}\left(-285y^{4}+970y^{2}z^{2}-32z^{4}\right)\right)$
<b>- 1</b>	$ -\frac{45}{16}\sqrt{\frac{7}{2}}xy\left(x^6+y^6-30y^4z^2+80y^2z^4-32z^6+3x^4\left(y^2-10z^2\right)+x^2\left(3y^4-60y^2z^2+80z^4\right)\right) $	$\frac{1}{16} \sqrt{\frac{7}{2}} \left(-5  x^8 + 40  y^8 - 1235  y^6  z^2 + 3480  y^4  z^4 - 1616  y^2  z^6 + 64  z^8 + 5  x^6  \left(5  y^2 + 23  z^2\right) + 15  x^4  \left(7  y^4 - 67  y^2  z^2 - 8  z^4\right) + x^2  \left(115  y^6 - 2355  y^4  z^2 + 3360  y^2  z^4 - 176  z^6\right)\right)$
0	$-\frac{9}{8} \ y \ z \ \left(35 \ x^6 + 35 \ y^6 - 280 \ y^4 \ z^2 + 336 \ y^2 \ z^4 - 64 \ z^6 + 35 \ x^4 \ \left(3 \ y^2 - 8 \ z^2\right) + 7 \ x^2 \ \left(15 \ y^4 - 80 \ y^2 \ z^2 + 48 \ z^4\right)\right)$	0
1	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\frac{1}{16}\sqrt{\frac{7}{2}}\left(-5x^8+40y^8-1235y^6z^2+3480y^4z^4-1616y^2z^6+64z^8+5x^6\left(5y^2+23z^2\right)+15x^4\left(7y^4-67y^2z^2-8z^4\right)+x^2\left(115y^6-2355y^4z^2+3360y^2z^4-176z^6\right)\right)$
2	$ \frac{1}{16} \sqrt[4]{21} \text{ y z } \left(195 \text{ x}^6 - 135 \text{ y}^6 + 970 \text{ y}^4 \text{ z}^2 - 944 \text{ y}^2 \text{ z}^4 + 96 \text{ z}^6 + 15 \text{ x}^4 \left(17 \text{ y}^2 - 82 \text{ z}^2\right) + \text{x}^2 \left(-75 \text{ y}^4 - 260 \text{ y}^2 \text{ z}^2 + 816 \text{ z}^4\right)\right) $	$\frac{1}{8}\sqrt{21}xz\left(-15x^{6}+5x^{4}\left(24y^{2}+13z^{2}\right)+x^{2}\left(285y^{4}-970y^{2}z^{2}+32z^{4}\right)+3\left(50y^{6}-345y^{4}z^{2}+304y^{2}z^{4}-16z^{6}\right)\right)$
3	$ -\frac{3}{16}\sqrt{\frac{21}{2}}xy\left(17x^{6}-27y^{6}+678y^{4}z^{2}-1280y^{2}z^{4}+160z^{6}+7x^{4}\left(y^{2}-54z^{2}\right)+x^{2}\left(-37y^{4}+300y^{2}z^{2}+480z^{4}\right)\right) $	$\frac{3}{16}\sqrt{\frac{21}{2}}\left(3x^{8} + 8y^{8} - 207y^{6}z^{2} + 420y^{4}z^{4} - 80y^{2}z^{6} - 3x^{6}\left(9y^{2} + 19z^{2}\right) + x^{4}\left(-55y^{4} + 735y^{2}z^{2} + 20z^{4}\right) \\ + x^{2}\left(-17y^{6} + 585y^{4}z^{2} - 1320y^{2}z^{4} + 80z^{6}\right)\right)$
4	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\frac{1}{2}  \sqrt{\frac{231}{2}}  \ x  z  \left(3  x^6 - 7  x^4  \left(6  y^2 + z^2\right)  - 5  x^2  \left(3  y^4 - 34  y^2  z^2 + 2  z^4\right)  + 15  \left(2  y^6 - 9  y^4  z^2 + 2  y^2  z^4\right)\right)$
5	$ \frac{1}{16} \sqrt{\frac{231}{2}} \times y \left(33 \times ^6 - x^4 \left(97 \times ^2 + 402 \times z^2\right) + 15 \times y^2 \left(3 \times ^4 - 46 \times y^2 \times z^2 + 16 \times z^4\right) - 5 \times z^2 \left(17 \times y^4 - 364 \times y^2 \times z^2 + 48 \times z^4\right) \right) $	$\frac{1}{16} \sqrt{\frac{231}{2}} \left( -5  x^8 + 8  y^8 - 127  y^6  z^2 + 60  y^4  z^4 + x^6  \left( 85  y^2 + 55  z^2 \right) - 15  x^4  \left( y^4 + 79  y^2  z^2 - 4  z^4 \right) + x^2  \left( -97  y^6 + 1545  y^4  z^2 - 360  y^2  z^4 \right) \right)$
6	$ \frac{3}{16} \sqrt{3003} \ y \ z \ \left(15 \ x^6 - 3 \ y^6 + 2 \ y^4 \ z^2 + x^4 \ \left(-85 \ y^2 + 10 \ z^2\right) + x^2 \ \left(57 \ y^4 - 20 \ y^2 \ z^2\right) \right) $	$-\frac{3}{8}\sqrt{3003}xz\left(x^{6}+x^{4}\left(-24y^{2}+z^{2}\right)+5y^{4}\left(-2y^{2}+z^{2}\right)+5x^{2}\left(9y^{4}-2y^{2}z^{2}\right)\right)$
7	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\frac{1}{16} \ \sqrt{\frac{429}{2}} \ \left(7 \ x^8 + 8 \ y^8 - 7 \ y^6 \ z^2 + 7 \ x^6 \ \left(-29 \ y^2 + z^2\right) + 105 \ x^4 \ \left(5 \ y^4 - y^2 \ z^2\right) - 7 \ x^2 \ \left(31 \ y^6 - 15 \ y^4 \ z^2\right)\right)$

 $n=7 \ Bz(A7/r^17)$ :

get\_xyz\_field.nb | 13

	Re	Im
- 7	$\frac{15}{16}  \sqrt{\frac{429}{2}}  x  \left( x^6 - 21  x^4  y^2 + 35  x^2  y^4 - 7  y^6 \right)  z$	$\frac{15}{16} \sqrt{\frac{429}{2}} y \left(-7 x^6 + 35 x^4 y^2 - 21 x^2 y^4 + y^6\right) z$
- 6	$-\frac{1}{16} \sqrt{3003} \left(x^6 - 15 \ x^4 \ y^2 + 15 \ x^2 \ y^4 - y^6\right) \ \left(x^2 + y^2 - 14 \ z^2\right)$	$\frac{1}{8} \sqrt{3003} \times y \left(3 \times^4 - 10 \times^2 y^2 + 3 y^4\right) \left(x^2 + y^2 - 14 z^2\right)$
- 5	$-\frac{39}{16}\sqrt{\frac{231}{2}}x\left(x^4-10x^2y^2+5y^4\right)z\left(x^2+y^2-4z^2\right)$	$\frac{39}{16} \ \sqrt{\frac{231}{2}} \ y \ \left(5 \ x^4 - 10 \ x^2 \ y^2 + y^4 \right) \ z \ \left(x^2 + y^2 - 4 \ z^2 \right)$
- 4	$\frac{3}{8}  \sqrt{\frac{231}{2}}  \left( x^4  -  6   x^2   y^2  +  y^4  \right)   \left( x^4  +  y^4  -  24   y^2   z^2  +  40   z^4  +  2   x^2   \left( y^2  -  12   z^2  \right)  \right)$	$-\frac{_{3}}{^{2}}\sqrt{\frac{_{231}}{^{2}}}xy\left(x^{2}-y^{2}\right)\left(x^{4}+y^{4}-24y^{2}z^{2}+40z^{4}+2x^{2}\left(y^{2}-12z^{2}\right)\right)$
- 3	$\frac{55}{16}  \sqrt{\frac{21}{2}}  x  \left(x^2 - 3  y^2\right)  z  \left(3  x^4 + 3  y^4 - 20  y^2  z^2 + 16  z^4 + x^2  \left(6  y^2 - 20  z^2\right)\right)$	$\frac{55}{16}  \sqrt{\frac{21}{2}}  y  \left(- 3   x^2  +  y^2\right)  z  \left(3   x^4  +  3   y^4  -  20   y^2   z^2  +  16   z^4  +  x^2  \left(6   y^2  -  20   z^2\right)\right)$
- 2	$-\frac{15}{16}\sqrt{21}\left(x^{2}-y^{2}\right)\left(x^{6}+y^{6}-30\;y^{4}\;z^{2}+80\;y^{2}\;z^{4}-32\;z^{6}+3\;x^{4}\;\left(y^{2}-10\;z^{2}\right)+x^{2}\;\left(3\;y^{4}-60\;y^{2}\;z^{2}+80\;z^{4}\right)\right)$	$\frac{15}{8}\sqrt{21}xy\left(x^{6}+y^{6}-30y^{4}z^{2}+80y^{2}z^{4}-32z^{6}+3x^{4}\left(y^{2}-10z^{2}\right)+x^{2}\left(3y^{4}-60y^{2}z^{2}+80z^{4}\right)\right)$
-1	$-\frac{9}{16}\sqrt{\frac{7}{2}}xz\left(35x^{6}+35y^{6}-280y^{4}z^{2}+336y^{2}z^{4}-64z^{6}+35x^{4}\left(3y^{2}-8z^{2}\right)+7x^{2}\left(15y^{4}-80y^{2}z^{2}+48z^{4}\right)\right)$	$\frac{9}{16}  \sqrt{\frac{7}{2}}  y  z  \left(35  x^6 + 35  y^6 - 280  y^4  z^2 + 336  y^2  z^4 - 64  z^6 + 35  x^4  \left(3  y^2 - 8  z^2\right) \right. \\ \left. +  7  x^2  \left(15  y^4 - 80  y^2  z^2 + 48  z^4\right)\right)  d^2  d^2 $
0	$\frac{35x^8}{8}+\frac{35y^8}{8}-140y^6z^2+420y^4z^4-224y^2z^6+16z^8+\frac{35}{2}x^6\left(y^2-8z^2\right)+\frac{105}{4}x^4\left(y^4-16y^2z^2+16z^4\right)+\frac{7}{2}x^2\left(5y^6-120y^4z^2+240y^2z^4-64z^6\right)$	0
1	$\frac{9}{16}  \sqrt{\frac{7}{2}}  x  z  \left(35  x^6 + 35  y^6 - 280  y^4  z^2 + 336  y^2  z^4 - 64  z^6 + 35  x^4  \left(3  y^2 - 8  z^2\right) \right. \\ \left. +  7  x^2  \left(15  y^4 - 80  y^2  z^2 + 48  z^4\right)\right)  d^2 + 336  y^2  z^4 + 336  y^2  z^2 +$	$\frac{9}{16}  \sqrt{\frac{7}{2}}  y  z  \left(35  x^6 + 35  y^6 - 280  y^4  z^2 + 336  y^2  z^4 - 64  z^6 + 35  x^4  \left(3  y^2 - 8  z^2\right) \right. \\ \left. + 7  x^2  \left(15  y^4 - 80  y^2  z^2 + 48  z^4\right)\right)  d^2  d$
2	$-\frac{15}{16}\sqrt{21}\left(x^{2}-y^{2}\right)\left(x^{6}+y^{6}-30\;y^{4}\;z^{2}+80\;y^{2}\;z^{4}-32\;z^{6}+3\;x^{4}\;\left(y^{2}-10\;z^{2}\right)+x^{2}\;\left(3\;y^{4}-60\;y^{2}\;z^{2}+80\;z^{4}\right)\right)$	$-\frac{15}{8}\sqrt{21}~x~y~\left(x^{6}+y^{6}-30~y^{4}~z^{2}+80~y^{2}~z^{4}-32~z^{6}+3~x^{4}~\left(y^{2}-10~z^{2}\right)~+x^{2}~\left(3~y^{4}-60~y^{2}~z^{2}+80~z^{4}\right)\right)$
3	$-\;\frac{55}{16}\;\sqrt{\frac{21}{2}}\;\;\chi\;\left(x^2-3\;y^2\right)\;z\;\left(3\;x^4+3\;y^4-20\;y^2\;z^2+16\;z^4+x^2\;\left(6\;y^2-20\;z^2\right)\right)$	$\frac{55}{16} \ \sqrt{\frac{21}{2}} \ y \ \left(- 3 \ x^2  +  y^2\right) \ z \ \left(3 \ x^4  +  3 \ y^4  -  20 \ y^2 \ z^2  +  16 \ z^4  +  x^2 \ \left(6 \ y^2  -  20 \ z^2\right)\right)$
4	$\frac{3}{8} \ \sqrt{\frac{231}{2}} \ \left(  x^4  -  6   x^2   y^2  +  y^4  \right) \ \left(  x^4  +  y^4  -  24   y^2   z^2  +  40   z^4  +  2   x^2   \left(  y^2  -  12   z^2  \right)  \right)$	$\frac{3}{2} \ \sqrt{\frac{231}{2}} \ x \ y \ \left(x^2 - y^2\right) \ \left(x^4 + y^4 - 24 \ y^2 \ z^2 + 40 \ z^4 + 2 \ x^2 \ \left(y^2 - 12 \ z^2\right)\right)$
5	$\frac{39}{16} \sqrt{\frac{231}{2}} \ x \ \left(x^4 - 10 \ x^2 \ y^2 + 5 \ y^4\right) \ z \ \left(x^2 + y^2 - 4 \ z^2\right)$	$\frac{39}{16} \sqrt{\frac{231}{2}} y \left(5 x^4 - 10 x^2 y^2 + y^4\right) z \left(x^2 + y^2 - 4 z^2\right)$
6	$-\frac{1}{16}\sqrt{3003} \ \left(x^6-15 \ x^4 \ y^2+15 \ x^2 \ y^4-y^6\right) \ \left(x^2+y^2-14 \ z^2\right)$	$-\frac{1}{8}\sqrt{3003}xy\left(3x^4-10x^2y^2+3y^4\right)\left(x^2+y^2-14z^2\right)$
7	$-\frac{15}{16}\sqrt{\frac{429}{2}}x\left(x^{6}-21x^{4}y^{2}+35x^{2}y^{4}-7y^{6}\right)z$	$\frac{15}{16} \ \sqrt{\frac{429}{2}} \ y \ \left(-7 \ x^6 + 35 \ x^4 \ y^2 - 21 \ x^2 \ y^4 + y^6\right) \ z$

 $n=8 Bx (A8/r^{19})$ :

Re .	Im
$\sqrt{\frac{715}{2}} \ x \ \left(9 \ x^8 + 73 \ y^8 + 56 \ y^6 \ z^2 - 4 \ x^6 \ \left(79 \ y^2 + 2 \ z^2\right) + 14 \ x^4 \ \left(77 \ y^4 + 12 \ y^2 \ z^2\right) - 140 \ x^2 \ \left(5 \ y^6 + 2 \ y^4 \ z^2\right)\right)$	$-4\;\sqrt{1430}\;\;y\;\left(10\;x^{8}+y^{6}\;\left(y^{2}+z^{2}\right)\;-7\;x^{6}\;\left(13\;y^{2}+z^{2}\right)\;+7\;x^{4}\;\left(19\;y^{4}+5\;y^{2}\;z^{2}\right)\;-x^{2}\;\left(37\;y^{6}+21\;y^{4}\;z^{2}\right)\right)$
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$2\;\sqrt{1430}\;x\;y\;z\;\left(-77\;x^{6}\;+59\;y^{6}\;+42\;y^{4}\;z^{2}\;+7\;x^{4}\;\left(71\;y^{2}\;+6\;z^{2}\right)\;-35\;x^{2}\;\left(13\;y^{4}\;+4\;y^{2}\;z^{2}\right)\right)$
$-2\sqrt{429}x\left(3x^{8}-54x^{6}\left(y^{2}+z^{2}\right)+14x^{4}\left(2y^{4}+69y^{2}z^{2}+2z^{4}\right)+5y^{4}\left(-3y^{4}+42y^{2}z^{2}+28z^{4}\right)+70x^{2}\left(y^{6}-19y^{4}z^{2}-4y^{2}z^{4}\right)\right)$	$-4\sqrt{429}y\left(-10x^{8}+y^{8}-13y^{6}z^{2}-14y^{4}z^{4}+35x^{6}\left(y^{2}+5z^{2}\right)+7x^{4}\left(3y^{4}-105y^{2}z^{2}-10z^{4}\right)+x^{2}\left(-23y^{6}+357y^{4}z^{2}+140y^{2}z^{4}\right)\right)$
$-10\sqrt{2002}z\left(2x^{8}-y^{8}+3y^{6}z^{2}+4y^{4}z^{4}-x^{6}\left(23y^{2}+11z^{2}\right)+x^{4}\left(-5y^{4}+125y^{2}z^{2}+4z^{4}\right)+x^{2}\left(19y^{6}-85y^{4}z^{2}-24y^{2}z^{4}\right)\right)$	$10\sqrt{2002}xyz\left(11x^{6}+7y^{6}-26y^{4}z^{2}-16y^{2}z^{4}-x^{4}\left(19y^{2}+58z^{2}\right)+x^{2}\left(-23y^{4}+140y^{2}z^{2}+16z^{4}\right)\right)$
$\sqrt{154} \times \left(9 \times ^8 - 4 \times ^6 \left(13 \times ^2 + 68 \times ^2\right) + \times ^4 \left(-106 \times ^4 + 1728 \times ^2 \times ^2 + 664 \times ^4\right) - 20 \times ^2 \left(y^6 - 68 \times ^4 \times ^2 + 212 \times ^2 \times ^4 + 8 \times ^6\right) + 5 \times ^2 \left(5 \times ^6 - 128 \times ^4 \times ^2 + 184 \times ^2 \times ^4 + 96 \times ^6\right)\right)$	$-4\sqrt{154}y\left(10x^{8}+y^{8}-23y^{6}z^{2}+16y^{4}z^{4}+40y^{2}z^{6}+5x^{6}\left(y^{2}-59z^{2}\right)+x^{4}\left(-19y^{4}+115y^{2}z^{2}+680z^{4}\right)-x^{2}\left(13y^{6}-387y^{4}z^{2}+760y^{2}z^{4}+120z^{6}\right)\right)$
$-2\sqrt{2310}z\left(-10x^8-3y^8+17y^6z^2+4y^4z^4-16y^2z^6+x^6\left(19y^2+87z^2\right)+x^4\left(65y^4-225y^2z^2-108z^4\right)+x^2\left(33y^6-295y^4z^2+312y^2z^4+16z^6\right)\right)$	$2\sqrt{2310}xyz\left(-33x^{6}+19y^{6}-138y^{4}z^{2}+96y^{2}z^{4}+32z^{6}+x^{4}\left(-47y^{2}+278z^{2}\right)+5x^{2}\left(y^{4}+28y^{2}z^{2}-64z^{4}\right)\right)$
$-2\sqrt{35} \times \left(9 \times ^8 - 13 \times ^8 + 454 \times ^6 \times ^2 - 1420 \times ^4 \times ^4 + 608 \times ^2 \times ^6 + 64 \times ^8 + 2 \times ^6 \times ^6 \times ^2 - 169 \times ^2\right) - 2 \times ^4 \times $	$4\sqrt{35}y\left(10x^8-y^8+29y^6z^2-50y^4z^4-48y^2z^6+32z^8+x^6\left(29y^2-367z^2\right)+x^4\left(27y^4-705y^2z^2+1270z^4\right)+x^2\left(7y^6-309y^4z^2+1220y^2z^4-752z^6\right)\right)$
$-2\sqrt{2}z\left(350x^8-35y^8+245y^6z^2-56y^4z^4-272y^2z^6+64z^8+35x^6\left(29y^2-103z^2\right)+7x^4\left(135y^4-995y^2z^2+872z^4\right)+x^2\left(245y^6-3115y^4z^2+6048y^2z^4-2032z^6\right)\right)$	$110\sqrt{2}xyz\left(7x^{6}+7y^{6}-70y^{4}z^{2}+112y^{2}z^{4}-32z^{6}+7x^{4}\left(3y^{2}-10z^{2}\right)+7x^{2}\left(3y^{4}-20y^{2}z^{2}+16z^{4}\right)\right)$
$15 \times \left(7 \times ^8 + 7 \times ^8 - 280 \times ^6 \times ^2 + 1120 \times ^4 \times ^4 - 896 \times ^2 \times ^6 + 128 \times ^8 + 28 \times ^6 \times ^6 \times ^2 + 14 \times ^4 \times$	0
$2\sqrt{2}z\left(350x^8-35y^8+245y^6z^2-56y^4z^4-272y^2z^6+64z^8+35x^6\left(29y^2-103z^2\right)+7x^4\left(135y^4-995y^2z^2+872z^4\right)+x^2\left(245y^6-3115y^4z^2+6048y^2z^4-2032z^6\right)\right)$	$110\sqrt{2}xyz\left(7x^{6}+7y^{6}-70y^{4}z^{2}+112y^{2}z^{4}-32z^{6}+7x^{4}\left(3y^{2}-10z^{2}\right)+7x^{2}\left(3y^{4}-20y^{2}z^{2}+16z^{4}\right)\right)$
$-2\sqrt{35}x\left(9x^8-13y^8+454y^6z^2-1420y^4z^4+608y^2z^6+64z^8+2x^6\left(7y^2-169z^2\right)-2x^4\left(6y^4+111y^2z^2-610z^4\right)-10x^2\left(3y^6-57y^4z^2+20y^2z^4+80z^6\right)\right)$	$-4\sqrt{35}y\left(10x^{8}-y^{8}+29y^{6}z^{2}-50y^{4}z^{4}-48y^{2}z^{6}+32z^{8}+x^{6}\left(29y^{2}-367z^{2}\right)+x^{4}\left(27y^{4}-705y^{2}z^{2}+1270z^{4}\right)+x^{2}\left(7y^{6}-309y^{4}z^{2}+1220y^{2}z^{4}-752z^{6}\right)\right)$
$2\sqrt{2310}z\left(-10x^{8}-3y^{8}+17y^{6}z^{2}+4y^{4}z^{4}-16y^{2}z^{6}+x^{6}\left(19y^{2}+87z^{2}\right)+x^{4}\left(65y^{4}-225y^{2}z^{2}-108z^{4}\right)+x^{2}\left(33y^{6}-295y^{4}z^{2}+312y^{2}z^{4}+16z^{6}\right)\right)$	$2\sqrt{2310}xyz\left(-33x^{6}+19y^{6}-138y^{4}z^{2}+96y^{2}z^{4}+32z^{6}+x^{4}\left(-47y^{2}+278z^{2}\right)+5x^{2}\left(y^{4}+28y^{2}z^{2}-64z^{4}\right)\right)$
$\sqrt{154} \times \left(9 \times^8 - 4 \times^6 \left(13 \times^2 + 68 \times^2\right) + \times^4 \left(-106 \times^4 + 1728 \times^2 \times^2 + 664 \times^4\right) - 20 \times^2 \left(y^6 - 68 \times^4 \times^2 + 212 \times^2 \times^4 + 8 \times^6\right) + 5 \times^2 \left(5 \times^6 - 128 \times^4 \times^2 + 184 \times^2 \times^4 + 96 \times^6\right)\right)$	$4\sqrt{154}y\left(10x^{8}+y^{8}-23y^{6}z^{2}+16y^{4}z^{4}+40y^{2}z^{6}+5x^{6}\left(y^{2}-59z^{2}\right)+x^{4}\left(-19y^{4}+115y^{2}z^{2}+680z^{4}\right)-x^{2}\left(13y^{6}-387y^{4}z^{2}+760y^{2}z^{4}+120z^{6}\right)\right)$
$10\sqrt{2002}z\left(2x^{8}-y^{8}+3y^{6}z^{2}+4y^{4}z^{4}-x^{6}\left(23y^{2}+11z^{2}\right)+x^{4}\left(-5y^{4}+125y^{2}z^{2}+4z^{4}\right)+x^{2}\left(19y^{6}-85y^{4}z^{2}-24y^{2}z^{4}\right)\right)$	$10\sqrt{2002}xyz\left(11x^{6}+7y^{6}-26y^{4}z^{2}-16y^{2}z^{4}-x^{4}\left(19y^{2}+58z^{2}\right)+x^{2}\left(-23y^{4}+140y^{2}z^{2}+16z^{4}\right)\right)$
$-2\sqrt{429}x\left(3x^{8}-54x^{6}\left(y^{2}+z^{2}\right)+14x^{4}\left(2y^{4}+69y^{2}z^{2}+2z^{4}\right)+5y^{4}\left(-3y^{4}+42y^{2}z^{2}+28z^{4}\right)+70x^{2}\left(y^{6}-19y^{4}z^{2}-4y^{2}z^{4}\right)\right)$	$4\sqrt{429}y\left(-10x^{8}+y^{8}-13y^{6}z^{2}-14y^{4}z^{4}+35x^{6}\left(y^{2}+5z^{2}\right)+7x^{4}\left(3y^{4}-105y^{2}z^{2}-10z^{4}\right)+x^{2}\left(-23y^{6}+357y^{4}z^{2}+140y^{2}z^{4}\right)\right)$
$-2\sqrt{1430}z\left(10x^{8}+7y^{6}\left(y^{2}+z^{2}\right)-7x^{6}\left(37y^{2}+z^{2}\right)+35x^{4}\left(17y^{4}+3y^{2}z^{2}\right)-7x^{2}\left(31y^{6}+15y^{4}z^{2}\right)\right)$	$2\;\sqrt{1430}\;\;x\;y\;z\;\left(-77\;x^{6}+59\;y^{6}+42\;y^{4}\;z^{2}+7\;x^{4}\;\left(71\;y^{2}+6\;z^{2}\right)-35\;x^{2}\;\left(13\;y^{4}+4\;y^{2}\;z^{2}\right)\right)$
$\sqrt{\frac{715}{2}} \ x \ \left(9 \ x^8 + 73 \ y^8 + 56 \ y^6 \ z^2 - 4 \ x^6 \ \left(79 \ y^2 + 2 \ z^2\right) + 14 \ x^4 \ \left(77 \ y^4 + 12 \ y^2 \ z^2\right) - 140 \ x^2 \ \left(5 \ y^6 + 2 \ y^4 \ z^2\right)\right)$	$4\ \sqrt{1430}\ y\ \left(10\ x^8+y^6\ \left(y^2+z^2\right)\ -7\ x^6\ \left(13\ y^2+z^2\right)\ +7\ x^4\ \left(19\ y^4+5\ y^2\ z^2\right)\ -x^2\ \left(37\ y^6+21\ y^4\ z^2\right)\right)$

 $n=8 By (A8/r^{19})$ :

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	Re Re	Im
- 8	$\sqrt{\frac{715}{2}} \ y \ \left(73 \ x^8 + 9 \ y^8 - 8 \ y^6 \ z^2 + x^6 \ \left(-700 \ y^2 + 56 \ z^2\right) + 14 \ x^4 \ \left(77 \ y^4 - 20 \ y^2 \ z^2\right) - 4 \ x^2 \ \left(79 \ y^6 - 42 \ y^4 \ z^2\right)\right)$	$4\;\sqrt{1430}\;\;x\;\left(x^{8}+10\;y^{8}-7\;y^{6}\;z^{2}+x^{6}\;\left(-37\;y^{2}+z^{2}\right)\right.\\ \left.+7\;x^{4}\;\left(19\;y^{4}-3\;y^{2}\;z^{2}\right)+x^{2}\;\left(-91\;y^{6}+35\;y^{4}\;z^{2}\right)\right)$
<b>-7</b>	$ \begin{array}{c} \begin{smallmatrix} v \\ 2 \sqrt{1430} \end{smallmatrix} \times y \times \left(59 \times ^6 - 77 \cdot y^6 + 42 \cdot y^4 \cdot z^2 - 7 \cdot x^4 \cdot \left(65 \cdot y^2 - 6 \cdot z^2\right) + 7 \cdot x^2 \cdot \left(71 \cdot y^4 - 20 \cdot y^2 \cdot z^2\right)\right) \\ \end{array} $	$2\;\sqrt{1430}\;z\;\left(7\;x^{8}+10\;y^{8}-7\;y^{6}\;z^{2}+7\;x^{6}\;\left(-31\;y^{2}+z^{2}\right)+35\;x^{4}\;\left(17\;y^{4}-3\;y^{2}\;z^{2}\right)-7\;x^{2}\;\left(37\;y^{6}-15\;y^{4}\;z^{2}\right)\right)$
-6	$2\sqrt{429}y\left(-15x^{8}+3y^{8}-54y^{6}z^{2}+28y^{4}z^{4}+70x^{6}\left(y^{2}+3z^{2}\right)+14x^{4}\left(2y^{4}-95y^{2}z^{2}+10z^{4}\right)+x^{2}\left(-54y^{6}+966y^{4}z^{2}-280y^{2}z^{4}\right)\right)$	$-4\sqrt{429}x\left(x^{8}-x^{6}\left(23y^{2}+13z^{2}\right)+7x^{4}\left(3y^{4}+51y^{2}z^{2}-2z^{4}\right)-5y^{4}\left(2y^{4}-35y^{2}z^{2}+14z^{4}\right)+35x^{2}\left(y^{6}-21y^{4}z^{2}+4y^{2}z^{4}\right)\right)$
- 5	$-10\sqrt{2002}xyz\left(7x^{6}+11y^{6}-58y^{4}z^{2}+16y^{2}z^{4}-x^{4}\left(23y^{2}+26z^{2}\right)+x^{2}\left(-19y^{4}+140y^{2}z^{2}-16z^{4}\right)\right)$	$-10\sqrt{2002}z\left(x^{8}-2y^{8}+11y^{6}z^{2}-4y^{4}z^{4}-x^{6}\left(19y^{2}+3z^{2}\right)+x^{4}\left(5y^{4}+85y^{2}z^{2}-4z^{4}\right)+x^{2}\left(23y^{6}-125y^{4}z^{2}+24y^{2}z^{4}\right)\right)$
-4	$\sqrt{154} \ y \ \left(25 \ x^8 + 9 \ y^8 - 272 \ y^6 \ z^2 + 664 \ y^4 \ z^4 - 160 \ y^2 \ z^6 - 20 \ x^6 \ \left(y^2 + 32 \ z^2\right) + x^4 \ \left(-106 \ y^4 + 1360 \ y^2 \ z^2 + 920 \ z^4\right) + x^2 \ \left(-52 \ y^6 + 1728 \ y^4 \ z^2 - 4240 \ y^2 \ z^4 + 480 \ z^6\right)\right)$	$4\sqrt{154}x\left(x^{8}-x^{6}\left(13y^{2}+23z^{2}\right)+x^{4}\left(-19y^{4}+387y^{2}z^{2}+16z^{4}\right)+5x^{2}\left(y^{6}+23y^{4}z^{2}-152y^{2}z^{4}+8z^{6}\right)+5\left(2y^{8}-59y^{6}z^{2}+136y^{4}z^{4}-24y^{2}z^{6}\right)\right)$
- 3	$2\sqrt{2310}xyz\left(19x^{6}-33y^{6}+278y^{4}z^{2}-320y^{2}z^{4}+32z^{6}+x^{4}\left(5y^{2}-138z^{2}\right)+x^{2}\left(-47y^{4}+140y^{2}z^{2}+96z^{4}\right)\right)$	$2\sqrt{2310}z\left(3x^8+10y^8-87y^6z^2+108y^4z^4-16y^2z^6-x^6\left(33y^2+17z^2\right)+x^4\left(-65y^4+295y^2z^2-4z^4\right)+x^2\left(-19y^6+225y^4z^2-312y^2z^4+16z^6\right)\right)$
- 2	$-2\sqrt{35}\ y\ \left(13\ x^8-9\ y^8+338\ y^6\ z^2-1220\ y^4\ z^4+800\ y^2\ z^6-64\ z^8+x^6\ \left(30\ y^2-454\ z^2\right)\right.\\ \left.+2\ x^4\ \left(6\ y^4-285\ y^2\ z^2+710\ z^4\right)+x^2\ \left(-14\ y^6+222\ y^4\ z^2+200\ y^2\ z^4-608\ z^6\right)\right)$	$-4\sqrt{35}x\left(x^{8}-10y^{8}+367y^{6}z^{2}-1270y^{4}z^{4}+752y^{2}z^{6}-32z^{8}-x^{6}\left(7y^{2}+29z^{2}\right)+x^{4}\left(-27y^{4}+309y^{2}z^{2}+50z^{4}\right)+x^{2}\left(-29y^{6}+705y^{4}z^{2}-1220y^{2}z^{4}+48z^{6}\right)\right)$
-1	$-110\sqrt{2} \times y \times (7 \times^{6} + 7 y^{6} - 70 y^{4} z^{2} + 112 y^{2} z^{4} - 32 z^{6} + 7 x^{4} (3 y^{2} - 10 z^{2}) + 7 x^{2} (3 y^{4} - 20 y^{2} z^{2} + 16 z^{4}))$	$-2\sqrt{2}z\left(35x^{8}-350y^{8}+3605y^{6}z^{2}-6104y^{4}z^{4}+2032y^{2}z^{6}-64z^{8}-245x^{6}\left(y^{2}+z^{2}\right)+x^{4}\left(-945y^{4}+3115y^{2}z^{2}+56z^{4}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)$
0	$15 \ y \ \left(7 \ x^8 + 7 \ y^8 - 280 \ y^6 \ z^2 + 1120 \ y^4 \ z^4 - 896 \ y^2 \ z^6 + 128 \ z^8 + 28 \ x^6 \ \left(y^2 - 10 \ z^2\right) + 14 \ x^4 \ \left(3 \ y^4 - 60 \ y^2 \ z^2 + 80 \ z^4\right) + 28 \ x^2 \ \left(y^6 - 30 \ y^4 \ z^2 + 80 \ y^2 \ z^4 - 32 \ z^6\right)\right)$	0
1	$110 \sqrt{2} \times y z \left(7 \times ^6 + 7 \cdot y^6 - 70 \cdot y^4 \cdot z^2 + 112 \cdot y^2 \cdot z^4 - 32 \cdot z^6 + 7 \cdot x^4 \cdot \left(3 \cdot y^2 - 10 \cdot z^2\right) + 7 \cdot x^2 \cdot \left(3 \cdot y^4 - 20 \cdot y^2 \cdot z^2 + 16 \cdot z^4\right)\right)$	$-2\sqrt{2}z\left(35x^{8}-350y^{8}+3605y^{6}z^{2}-6104y^{4}z^{4}+2032y^{2}z^{6}-64z^{8}-245x^{6}\left(y^{2}+z^{2}\right)+x^{4}\left(-945y^{4}+3115y^{2}z^{2}+56z^{4}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}\left(-1015y^{6}+6965y^{4}z^{2}-6048y^{2}z^{4}+272z^{6}\right)+x^{2}y^{2}z^{4}+272z^{6}z^{6}+272z^{6}z^{6}+272$
2	$-2\sqrt{35}\ y\ \left(13\ x^{8}-9\ y^{8}+338\ y^{6}\ z^{2}-1220\ y^{4}\ z^{4}+800\ y^{2}\ z^{6}-64\ z^{8}+x^{6}\ \left(30\ y^{2}-454\ z^{2}\right)\right.\\ +2\ x^{4}\ \left(6\ y^{4}-285\ y^{2}\ z^{2}+710\ z^{4}\right)+x^{2}\ \left(-14\ y^{6}+222\ y^{4}\ z^{2}+200\ y^{2}\ z^{4}-608\ z^{6}\right)$	$4\sqrt{35}x\left(x^{8}-10y^{8}+367y^{6}z^{2}-1270y^{4}z^{4}+752y^{2}z^{6}-32z^{8}-x^{6}\left(7y^{2}+29z^{2}\right)+x^{4}\left(-27y^{4}+309y^{2}z^{2}+50z^{4}\right)+x^{2}\left(-29y^{6}+705y^{4}z^{2}-1220y^{2}z^{4}+48z^{6}\right)\right)$
3	$-2\sqrt{2310}xyz\left(19x^{6}-33y^{6}+278y^{4}z^{2}-320y^{2}z^{4}+32z^{6}+x^{4}\left(5y^{2}-138z^{2}\right)+x^{2}\left(-47y^{4}+140y^{2}z^{2}+96z^{4}\right)\right)$	$2\sqrt{2310}z\left(3x^{8}+10y^{8}-87y^{6}z^{2}+108y^{4}z^{4}-16y^{2}z^{6}-x^{6}\left(33y^{2}+17z^{2}\right)+x^{4}\left(-65y^{4}+295y^{2}z^{2}-4z^{4}\right)+x^{2}\left(-19y^{6}+225y^{4}z^{2}-312y^{2}z^{4}+16z^{6}\right)\right)$
4	$\sqrt{154} \ y \ \left(25 \ x^8 + 9 \ y^8 - 272 \ y^6 \ z^2 + 664 \ y^4 \ z^4 - 160 \ y^2 \ z^6 - 20 \ x^6 \ \left(y^2 + 32 \ z^2\right) + x^4 \ \left(-106 \ y^4 + 1360 \ y^2 \ z^2 + 920 \ z^4\right) + x^2 \ \left(-52 \ y^6 + 1728 \ y^4 \ z^2 - 4240 \ y^2 \ z^4 + 480 \ z^6\right)\right)$	$-4\sqrt{154}x\left(x^{8}-x^{6}\left(13y^{2}+23z^{2}\right)+x^{4}\left(-19y^{4}+387y^{2}z^{2}+16z^{4}\right)+5x^{2}\left(y^{6}+23y^{4}z^{2}-152y^{2}z^{4}+8z^{6}\right)+5\left(2y^{8}-59y^{6}z^{2}+136y^{4}z^{4}-24y^{2}z^{6}\right)\right)$
5	$10 \sqrt{2002} \times y z \left(7 x^6 + 11 y^6 - 58 y^4 z^2 + 16 y^2 z^4 - x^4 \left(23 y^2 + 26 z^2\right) + x^2 \left(-19 y^4 + 140 y^2 z^2 - 16 z^4\right)\right)$	$-10\sqrt{2002}z\left(x^{8}-2y^{8}+11y^{6}z^{2}-4y^{4}z^{4}-x^{6}\left(19y^{2}+3z^{2}\right)+x^{4}\left(5y^{4}+85y^{2}z^{2}-4z^{4}\right)+x^{2}\left(23y^{6}-125y^{4}z^{2}+24y^{2}z^{4}\right)\right)$
6	$2\sqrt{429}y\left(-15x^{8}+3y^{8}-54y^{6}z^{2}+28y^{4}z^{4}+70x^{6}\left(y^{2}+3z^{2}\right)+14x^{4}\left(2y^{4}-95y^{2}z^{2}+10z^{4}\right)+x^{2}\left(-54y^{6}+966y^{4}z^{2}-280y^{2}z^{4}\right)\right)$	$4\sqrt{429}x\left(x^{8}-x^{6}\left(23y^{2}+13z^{2}\right)+7x^{4}\left(3y^{4}+51y^{2}z^{2}-2z^{4}\right)-5y^{4}\left(2y^{4}-35y^{2}z^{2}+14z^{4}\right)+35x^{2}\left(y^{6}-21y^{4}z^{2}+4y^{2}z^{4}\right)\right)$
7	$-2\sqrt{1430} \times y \times (59 \times^6 - 77 y^6 + 42 y^4 z^2 - 7 x^4 (65 y^2 - 6 z^2) + 7 x^2 (71 y^4 - 20 y^2 z^2))$	$2\;\sqrt{1430}\;z\;\left(7\;x^{8}+10\;y^{8}-7\;y^{6}\;z^{2}+7\;x^{6}\;\left(-31\;y^{2}+z^{2}\right)+35\;x^{4}\;\left(17\;y^{4}-3\;y^{2}\;z^{2}\right)-7\;x^{2}\;\left(37\;y^{6}-15\;y^{4}\;z^{2}\right)\right)$
8	$\sqrt{\frac{715}{2}} \ y \ \left(73 \ x^8 + 9 \ y^8 - 8 \ y^6 \ z^2 + x^6 \ \left(-700 \ y^2 + 56 \ z^2\right) + 14 \ x^4 \ \left(77 \ y^4 - 20 \ y^2 \ z^2\right) - 4 \ x^2 \ \left(79 \ y^6 - 42 \ y^4 \ z^2\right)\right)$	$-4\sqrt{1430}x\left(x^{8}+10y^{8}-7y^{6}z^{2}+x^{6}\left(-37y^{2}+z^{2}\right)+7x^{4}\left(19y^{4}-3y^{2}z^{2}\right)+x^{2}\left(-91y^{6}+35y^{4}z^{2}\right)\right)$

 $n=8 Bz(A8/r^{19})$ :

	Re	Im
- 8	$17 \sqrt{\frac{715}{2}} \left( x^8 - 28 x^6 y^2 + 70 x^4 y^4 - 28 x^2 y^6 + y^8 \right) z$	$-68 \sqrt{1430} \times y \left(x^6 - 7 x^4 y^2 + 7 x^2 y^4 - y^6\right) z$
-7	$-2\sqrt{1430} \times (x^6 - 21 x^4 y^2 + 35 x^2 y^4 - 7 y^6) (x^2 + y^2 - 16 z^2)$	$-2\sqrt{1430}y\left(-7x^{6}+35x^{4}y^{2}-21x^{2}y^{4}+y^{6}\right)\left(x^{2}+y^{2}-16z^{2}\right)$
<b>-6</b>	$-10\;\sqrt{429}\;\left(x^{6}-15\;x^{4}\;y^{2}+15\;x^{2}\;y^{4}-y^{6}\right)\;z\;\left(3\;x^{2}+3\;y^{2}-14\;z^{2}\right)$	$20 \sqrt{429} \times y \left(3 \times^4 - 10 \times^2 y^2 + 3 y^4\right) z \left(3 \times^2 + 3 y^2 - 14 z^2\right)$
- 5	$2\;\sqrt{2002}\;\;x\;\left(x^4-10\;x^2\;y^2+5\;y^4\right)\;\left(x^4+y^4-28\;y^2\;z^2+56\;z^4+2\;x^2\;\left(y^2-14\;z^2\right)\right)$	$-2\sqrt{2002}y\left(5x^{4}-10x^{2}y^{2}+y^{4}\right)\left(x^{4}+y^{4}-28y^{2}z^{2}+56z^{4}+2x^{2}\left(y^{2}-14z^{2}\right)\right)$
-4	$65\sqrt{154}\left(x^{4}-6x^{2}y^{2}+y^{4}\right)z\left(x^{4}+y^{4}-8y^{2}z^{2}+8z^{4}+2x^{2}\left(y^{2}-4z^{2}\right)\right)$	$-260 \sqrt{154} \times y \left(x^2 - y^2\right) z \left(x^4 + y^4 - 8 y^2 z^2 + 8 z^4 + 2 x^2 \left(y^2 - 4 z^2\right)\right)$
- 3	$-2\sqrt{2310}x\left(x^2-3y^2\right)\left(x^6+y^6-36y^4z^2+120y^2z^4-64z^6+3x^4\left(y^2-12z^2\right)+3x^2\left(y^4-24y^2z^2+40z^4\right)\right)$	$2\;\sqrt{2310}\;\;y\;\left(3\;x^2-y^2\right)\;\left(x^6+y^6-36\;y^4\;z^2+120\;y^2\;z^4-64\;z^6+3\;x^4\;\left(y^2-12\;z^2\right)+3\;x^2\;\left(y^4-24\;y^2\;z^2+40\;z^4\right)\right)$
- 2	$-22\sqrt{35}\left(x^2-y^2\right)z\left(7x^6+7y^6-70y^4z^2+112y^2z^4-32z^6+7x^4\left(3y^2-10z^2\right)+7x^2\left(3y^4-20y^2z^2+16z^4\right)\right)$	$44\sqrt{35}xyz\left(7x^{6}+7y^{6}-70y^{4}z^{2}+112y^{2}z^{4}-32z^{6}+7x^{4}\left(3y^{2}-10z^{2}\right)+7x^{2}\left(3y^{4}-20y^{2}z^{2}+16z^{4}\right)\right)$
- 1	$10\sqrt{2}x\left(7x^{8}+7y^{8}-280y^{6}z^{2}+1120y^{4}z^{4}-896y^{2}z^{6}+128z^{8}+28x^{6}\left(y^{2}-10z^{2}\right)+14x^{4}\left(3y^{4}-60y^{2}z^{2}+80z^{4}\right)+28x^{2}\left(y^{6}-30y^{4}z^{2}+80y^{2}z^{4}-32z^{6}\right)\right)$	$-10\;\sqrt{2}\;\;y\;\left(7\;x^{8}+7\;y^{8}-280\;y^{6}\;z^{2}+1120\;y^{4}\;z^{4}-896\;y^{2}\;z^{6}+128\;z^{8}+28\;x^{6}\;\left(y^{2}-10\;z^{2}\right)+14\;x^{4}\;\left(3\;y^{4}-60\;y^{2}\;z^{2}+80\;z^{4}\right)+28\;x^{2}\;\left(y^{6}-30\;y^{4}\;z^{2}+80\;y^{2}\;z^{4}-32\;z^{6}\right)\right)$
0	$3\ z\ \left(315\ x^8+315\ y^8-3360\ y^6\ z^2+6048\ y^4\ z^4-2304\ y^2\ z^6+128\ z^8+420\ x^6\ \left(3\ y^2-8\ z^2\right)\right.\\ \left.+126\ x^4\ \left(15\ y^4-80\ y^2\ z^2+48\ z^4\right)\right.\\ \left.+36\ x^2\ \left(35\ y^6-280\ y^4\ z^2+336\ y^2\ z^4-64\ z^6\right)\right)$	0
1	$-10\;\sqrt{2}\;x\;\left(7\;x^{8}+7\;y^{8}-280\;y^{6}\;z^{2}+1120\;y^{4}\;z^{4}-896\;y^{2}\;z^{6}+128\;z^{8}+28\;x^{6}\;\left(y^{2}-10\;z^{2}\right)+14\;x^{4}\;\left(3\;y^{4}-60\;y^{2}\;z^{2}+80\;z^{4}\right)+28\;x^{2}\;\left(y^{6}-30\;y^{4}\;z^{2}+80\;y^{2}\;z^{4}-32\;z^{6}\right)\right)$	$-10\;\sqrt{2}\;\;y\;\left(7\;x^{8}+7\;y^{8}-280\;y^{6}\;z^{2}+1120\;y^{4}\;z^{4}-896\;y^{2}\;z^{6}+128\;z^{8}+28\;x^{6}\;\left(y^{2}-10\;z^{2}\right)+14\;x^{4}\;\left(3\;y^{4}-60\;y^{2}\;z^{2}+80\;z^{4}\right)+28\;x^{2}\;\left(y^{6}-30\;y^{4}\;z^{2}+80\;y^{2}\;z^{4}-32\;z^{6}\right)\right)$
2	$-22\sqrt{35}\left(x^2-y^2\right)z\left(7x^6+7y^6-70y^4z^2+112y^2z^4-32z^6+7x^4\left(3y^2-10z^2\right)+7x^2\left(3y^4-20y^2z^2+16z^4\right)\right)$	$-44\sqrt{35}xyz\left(7x^{6}+7y^{6}-70y^{4}z^{2}+112y^{2}z^{4}-32z^{6}+7x^{4}\left(3y^{2}-10z^{2}\right)+7x^{2}\left(3y^{4}-20y^{2}z^{2}+16z^{4}\right)\right)$
3	$2\;\sqrt{2310}\;\;x\;\left(x^2-3\;y^2\right)\;\left(x^6+y^6-36\;y^4\;z^2+120\;y^2\;z^4-64\;z^6+3\;x^4\;\left(y^2-12\;z^2\right)+3\;x^2\;\left(y^4-24\;y^2\;z^2+40\;z^4\right)\right)$	$2\;\sqrt{2310}\;\;y\;\left(3\;x^2-y^2\right)\;\left(x^6+y^6-36\;y^4\;z^2+120\;y^2\;z^4-64\;z^6+3\;x^4\;\left(y^2-12\;z^2\right)+3\;x^2\;\left(y^4-24\;y^2\;z^2+40\;z^4\right)\right)$
4	$65\sqrt{154}\left(x^{4}-6x^{2}y^{2}+y^{4}\right)z\left(x^{4}+y^{4}-8y^{2}z^{2}+8z^{4}+2x^{2}\left(y^{2}-4z^{2}\right)\right)$	$260 \sqrt{154} \times y \left(x^2 - y^2\right) z \left(x^4 + y^4 - 8 y^2 z^2 + 8 z^4 + 2 x^2 \left(y^2 - 4 z^2\right)\right)$
5	$-2\sqrt{2002}x\left(x^4-10x^2y^2+5y^4\right)\left(x^4+y^4-28y^2z^2+56z^4+2x^2\left(y^2-14z^2\right)\right)$	$-2\sqrt{2002}y\left(5x^4-10x^2y^2+y^4\right)\left(x^4+y^4-28y^2z^2+56z^4+2x^2\left(y^2-14z^2\right)\right)$
6	$-10\sqrt{429}\left(x^{6}-15x^{4}y^{2}+15x^{2}y^{4}-y^{6}\right)z\left(3x^{2}+3y^{2}-14z^{2}\right)$	$-20\sqrt{429}$ x y $\left(3x^4-10x^2y^2+3y^4\right)$ z $\left(3x^2+3y^2-14z^2\right)$
7	$2  \sqrt{1430}   x  \left( x^6 - 21  x^4  y^2 + 35  x^2  y^4 - 7  y^6 \right)  \left( x^2 + y^2 - 16  z^2 \right)$	$-2\sqrt{1430}y\left(-7x^{6}+35x^{4}y^{2}-21x^{2}y^{4}+y^{6}\right)\left(x^{2}+y^{2}-16z^{2}\right)$
8	$17  \sqrt{\frac{715}{2}}  \left( x^8 - 28  x^6  y^2 + 70  x^4  y^4 - 28  x^2  y^6 + y^8 \right)  z$	$68 \sqrt{1430} \times y \left(x^6 - 7 x^4 y^2 + 7 x^2 y^4 - y^6\right) z$

 $n=9 Bx (A9/r^21)$ :

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	Re	Im
- 9	$\sqrt{\frac{2431}{2}} \left( 10 \ x^{10} - 9 \ y^8 \ \left( y^2 + z^2 \right) + 252 \ x^6 \ y^2 \ \left( 8 \ y^2 + z^2 \right) - 9 \ x^8 \ \left( 49 \ y^2 + z^2 \right) - 42 \ x^4 \ \left( 47 \ y^6 + 15 \ y^4 \ z^2 \right) + 18 \ x^2 \ \left( 23 \ y^8 + 14 \ y^6 \ z^2 \right) \right)$	$\sqrt{\frac{2431}{2}} \; \; x \; y \; \left(-99 \; x^8 - 91 \; y^8 - 72 \; y^6 \; z^2 + 12 \; x^6 \; \left(97 \; y^2 + 6 \; z^2\right) - 126 \; x^4 \; \left(19 \; y^4 + 4 \; y^2 \; z^2\right) + 36 \; x^2 \; \left(31 \; y^6 + 14 \; y^4 \; z^2\right)\right)$
- 8	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$-24\sqrt{2431}yz\left(12x^{8}+y^{6}\left(y^{2}+z^{2}\right)-7x^{6}\left(15y^{2}+z^{2}\right)+7x^{4}\left(21y^{4}+5y^{2}z^{2}\right)-3x^{2}\left(13y^{6}+7y^{4}z^{2}\right)\right)$
- 7	$-3\sqrt{\frac{143}{2}}\left(10\ x^{10}-3\ x^{8}\left(83\ y^{2}+67\ z^{2}\right)+7\ y^{6}\left(y^{4}-15\ y^{2}\ z^{2}-16\ z^{4}\right)+28\ x^{6}\left(12\ y^{4}+177\ y^{2}\ z^{2}+4\ z^{4}\right)+42\ x^{4}\left(9\ y^{6}-255\ y^{4}\ z^{2}-40\ y^{2}\ z^{4}\right)-42\ x^{2}\left(5\ y^{8}-86\ y^{6}\ z^{2}-40\ y^{4}\ z^{4}\right)\right)$	$3\sqrt{\frac{_{143}}{^{2}}} \times y \left(77 \times ^{8} - 59 y^{8} + 936 y^{6} z^{2} + 672 y^{4} z^{4} - 84 x^{6} \left(5 y^{2} + 18 z^{2}\right) - 42 x^{4} \left(y^{4} - 220 y^{2} z^{2} - 16 z^{4}\right) + 4 x^{2} \left(99 y^{6} - 1974 y^{4} z^{2} - 560 y^{2} z^{4}\right)\right)$
- 6	$-2\sqrt{858} \times z \left(33 \times ^8 - 141 \times ^8 + 602 \times ^6 \times ^2 + 420 \times ^4 \times ^4 - 2 \times ^6 \times ^2 + 103 \times ^2\right) + 42 \times ^4 \left(6 \times ^4 + 83 \times ^2 \times ^2 + 2 \times ^4\right) + 42 \times ^2 \left(17 \times ^6 - 105 \times ^4 \times ^2 - 20 \times ^2 \times ^4\right)$	$4\sqrt{858}\ y\ z\ \left(108\ x^{8}-9\ y^{8}+33\ y^{6}\ z^{2}+42\ y^{4}\ z^{4}-21\ x^{6}\ \left(17\ y^{2}+31\ z^{2}\right)-7\ x^{4}\ \left(33\ y^{4}-365\ y^{2}\ z^{2}-30\ z^{4}\right)+3\ x^{2}\ \left(75\ y^{6}-371\ y^{4}\ z^{2}-140\ y^{2}\ z^{4}\right)\right)$
- 5	$3\sqrt{1430}\left(2x^{10}-3x^{8}\left(7y^{2}+23z^{2}\right)-28x^{6}\left(y^{4}-27y^{2}z^{2}-7z^{4}\right)+14x^{4}\left(y^{6}+15y^{4}z^{2}-150y^{2}z^{4}-4z^{6}\right)-y^{4}\left(y^{6}-27y^{4}z^{2}+28y^{2}z^{4}+56z^{6}\right)+6x^{2}\left(3y^{8}-98y^{6}z^{2}+210y^{4}z^{4}+56y^{2}z^{6}\right)\right)$	$-3\sqrt{1430}xy\left(11x^{8}+7y^{8}-204y^{6}z^{2}+336y^{4}z^{4}+224y^{2}z^{6}-4x^{6}\left(2y^{2}+93z^{2}\right)-42x^{4}\left(y^{4}-14y^{2}z^{2}-24z^{4}\right)-4x^{2}\left(4y^{6}-189y^{4}z^{2}+560y^{2}z^{4}+56z^{6}\right)\right)$
	$6\sqrt{1001} \times z \left(11 \times ^8 + 27 \times ^8 - 224 \times ^6 \times ^2 + 168 \times ^4 \times ^4 + 96 \times ^2 \times ^6 - 4 \times ^6 \left(15 \times ^2 + 28 \times ^2\right) - 42 \times ^4 \left(3 \times ^4 - 16 \times ^2 \times ^2 - 4 \times ^4\right) - 4 \times ^2 \left(7 \times ^6 - 140 \times ^4 \times ^2 + 252 \times ^2 \times ^4 + 8 \times ^6\right)\right)$	$-24\sqrt{1001}yz\left(12x^{8}+y^{8}-7y^{6}z^{2}+8y^{2}z^{6}+7x^{6}\left(y^{2}-17z^{2}\right)-7x^{4}\left(3y^{4}-5y^{2}z^{2}-24z^{4}\right)-3x^{2}\left(5y^{6}-49y^{4}z^{2}+56y^{2}z^{4}+8z^{6}\right)\right)$
- 3		$\sqrt{462} \times y \left(33 \times ^8 - 19 \times ^8 + 756 \times ^6 \times ^2 - 2688 \times ^4 \times ^4 + 1120 \times ^2 \times ^2 + 384 \times ^8 + 4 \times ^6 \left(20 \times ^2 - 357 \times ^2\right) + 42 \times ^4 \left(y^4 - 50 \times ^2 \times ^2 + 144 \times ^4\right) - 12 \times ^2 \left(2 \times ^6 - 7 \times ^4 \times ^2 - 280 \times ^2 \times ^4 + 392 \times ^6\right)\right)$
- 2		$12\sqrt{22}yz\left(84x^8-7y^8+63y^6z^2-42y^4z^4-80y^2z^6+32z^8+49x^6\left(5y^2-21z^2\right)+21x^4\left(11y^4-95y^2z^2+102z^4\right)+3x^2\left(21y^6-301y^4z^2+700y^2z^4-304z^6\right)\right)$
-1	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$-33 \times y \left(7 \times ^8+7 y^8-336 y^6 z^2+1680 y^4 z^4-1792 y^2 z^6+384 z^8+28 x^6 \left(y^2-12 z^2\right)+42 x^4 \left(y^4-24 y^2 z^2+40 z^4\right)+28 x^2 \left(y^6-36 y^4 z^2+120 y^2 z^4-64 z^6\right)\right)$
0	$11\sqrt{10} \times z \left(63 \times ^8 + 63 \times ^8 - 840 \times ^6 \times ^2 + 2016 \times ^4 \times ^4 - 1152 \times ^2 \times ^6 + 128 \times ^8 + 84 \times ^6 \left(3 \times ^2 - 10 \times ^2\right) + 126 \times ^4 \left(3 \times ^4 - 20 \times ^2 \times ^2 + 16 \times ^4\right) + 36 \times ^2 \left(7 \times ^6 - 70 \times ^4 \times ^2 + 112 \times ^2 \times ^4 - 32 \times ^6\right)\right)$	0
1	$-3 \left(70  x^{10} - 7  y^{10} + 273  y^8  z^2 - 840  y^6  z^4 - 224  y^4  z^6 + 768  y^2  z^8 - 128  z^{10} + 21  x^8 \left(13  y^2 - 163  z^2\right) + 196  x^6 \left(2  y^4 - 51  y^2  z^2 + 90  z^4\right) + 14  x^4 \left(17  y^6 - 675  y^4  z^2 + 2460  y^2  z^4 - 1424  z^6\right) + 6  x^2 \left(7  y^8 - 434  y^6  z^2 + 2660  y^4  z^4 - 3360  y^2  z^6 + 832  z^8\right)$	$-33xy\left(7x^{8}+7y^{8}-336y^{6}z^{2}+1680y^{4}z^{4}-1792y^{2}z^{6}+384z^{8}+28x^{6}\left(y^{2}-12z^{2}\right)+42x^{4}\left(y^{4}-24y^{2}z^{2}+40z^{4}\right)+28x^{2}\left(y^{6}-36y^{4}z^{2}+120y^{2}z^{4}-64z^{6}\right)\right)$
2	$-6\sqrt{22} \times z \left(77 \times ^8 - 105 \times ^8 + 1218 \times ^6 \times ^2 - 2268 \times ^4 \times ^4 + 672 \times ^2 \times ^6 + 64 \times ^8 + 42 \times ^6 \left(3 \times ^2 - 23 \times ^2\right) - 42 \times ^4 \left(2 \times ^4 + 17 \times ^2 \times ^2 - 50 \times ^4\right) - 2 \times ^2 \left(119 \times ^6 - 735 \times ^4 \times ^2 + 84 \times ^2 \times ^4 + 496 \times ^6\right)\right)$	$-12\sqrt{22}yz\left(84x^8-7y^8+63y^6z^2-42y^4z^4-80y^2z^6+32z^8+49x^6\left(5y^2-21z^2\right)+21x^4\left(11y^4-95y^2z^2+102z^4\right)+3x^2\left(21y^6-301y^4z^2+700y^2z^4-304z^6\right)\right)$
3	$\sqrt{462} \left( 10  x^{10} - 9  x^8  \left( y^2 + 49  z^2 \right) - 84  x^6  \left( y^4 - 9  y^2  z^2 - 23  z^4 \right) - 14  x^4  \left( 7  y^6 - 195  y^4  z^2 + 330  y^2  z^4 + 116  z^6 \right) + 3  y^2  \left( y^8 - 35  y^6  z^2 + 84  y^4  z^4 + 56  y^2  z^6 - 64  z^8 \right) - 6  x^2  \left( 5  y^8 - 238  y^6  z^2 + 1050  y^4  z^4 - 728  y^2  z^6 - 32  z^8 \right) \right)$	$\sqrt{462} \times y \left(33 \times ^8 - 19 \text{ y}^8 + 756 \text{ y}^6 \text{ z}^2 - 2688 \text{ y}^4 \text{ z}^4 + 1120 \text{ y}^2 \text{ z}^6 + 384 \text{ z}^8 + 4 \text{ x}^6 \left(20 \text{ y}^2 - 357 \text{ z}^2\right) + 42 \times ^4 \left(\text{y}^4 - 50 \text{ y}^2 \text{ z}^2 + 144 \text{ z}^4\right) - 12 \times ^2 \left(2 \text{ y}^6 - 7 \text{ y}^4 \text{ z}^2 - 280 \text{ y}^2 \text{ z}^4 + 392 \text{ z}^6\right)\right)$
4	$6\sqrt{1001} \times z \left(11 \times ^8 + 27 \times ^8 - 224 \times ^6 \times ^2 + 168 \times ^4 \times ^4 + 96 \times ^2 \times ^6 - 4 \times ^6 \left(15 \times ^2 + 28 \times ^2\right) - 42 \times ^4 \left(3 \times ^4 - 16 \times ^2 \times ^2 - 4 \times ^4\right) - 4 \times ^2 \left(7 \times ^6 - 140 \times ^4 \times ^2 + 252 \times ^2 \times ^4 + 8 \times ^6\right)\right)$	$24\sqrt{1001} \text{ y z } \left(12 \text{ x}^8 + \text{y}^8 - 7 \text{ y}^6 \text{ z}^2 + 8 \text{ y}^2 \text{ z}^6 + 7 \text{ x}^6  \left(\text{y}^2 - 17 \text{ z}^2\right) - 7 \text{ x}^4  \left(3 \text{ y}^4 - 5 \text{ y}^2 \text{ z}^2 - 24 \text{ z}^4\right) - 3 \text{ x}^2  \left(5 \text{ y}^6 - 49 \text{ y}^4 \text{ z}^2 + 56 \text{ y}^2 \text{ z}^4 + 8 \text{ z}^6\right)\right)$
5	$-3\sqrt{1430}\left(2{x^{10}}-3{x^{8}}\left(7{y^{2}}+23{z^{2}}\right)-28{x^{6}}\left({y^{4}}-27{y^{2}}{z^{2}}-7{z^{4}}\right)+14{x^{4}}\left({y^{6}}+15{y^{4}}{z^{2}}-150{y^{2}}{z^{4}}-4{z^{6}}\right)-{y^{4}}\left({y^{6}}-27{y^{4}}{z^{2}}+28{y^{2}}{z^{4}}+56{z^{6}}\right)+6{x^{2}}\left(3{y^{8}}-98{y^{6}}{z^{2}}+210{y^{4}}{z^{4}}+56{y^{2}}{z^{6}}\right)\right)$	$-3\sqrt{1430}\times y\left(11x^{8}+7y^{8}-204y^{6}z^{2}+336y^{4}z^{4}+224y^{2}z^{6}-4x^{6}\left(2y^{2}+93z^{2}\right)-42x^{4}\left(y^{4}-14y^{2}z^{2}-24z^{4}\right)-4x^{2}\left(4y^{6}-189y^{4}z^{2}+560y^{2}z^{4}+56z^{6}\right)\right)$
6	$-2\sqrt{858} \times z \left(33 \times ^8 - 141 \times ^8 + 602 \times ^6 \times ^2 + 420 \times ^4 \times ^4 - 2 \times ^6 \left(285 \times ^2 + 103 \times ^2\right) + 42 \times ^4 \left(6 \times ^4 + 83 \times ^2 \times ^2 + 2 \times ^4\right) + 42 \times ^2 \left(17 \times ^6 - 105 \times ^4 \times ^2 - 20 \times ^2 \times ^4\right)\right)$	$-4\sqrt{858}yz\left(108x^{8}-9y^{8}+33y^{6}z^{2}+42y^{4}z^{4}-21x^{6}\left(17y^{2}+31z^{2}\right)-7x^{4}\left(33y^{4}-365y^{2}z^{2}-30z^{4}\right)+3x^{2}\left(75y^{6}-371y^{4}z^{2}-140y^{2}z^{4}\right)\right)$
7		$3\sqrt{\frac{_{143}}{^{2}}}xy\left(77x^{8}-59y^{8}+936y^{6}z^{2}+672y^{4}z^{4}-84x^{6}\left(5y^{2}+18z^{2}\right)-42x^{4}\left(y^{4}-220y^{2}z^{2}-16z^{4}\right)+4x^{2}\left(99y^{6}-1974y^{4}z^{2}-560y^{2}z^{4}\right)\right)$
8	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$24\sqrt{2431}yz\left(12x^{8}+y^{6}\left(y^{2}+z^{2}\right)-7x^{6}\left(15y^{2}+z^{2}\right)+7x^{4}\left(21y^{4}+5y^{2}z^{2}\right)-3x^{2}\left(13y^{6}+7y^{4}z^{2}\right)\right)$
9	$\sqrt{\frac{2431}{2}} \left( -10 \ x^{10} + 9 \ y^8 \ \left( y^2 + z^2 \right) - 252 \ x^6 \ y^2 \ \left( 8 \ y^2 + z^2 \right) + 9 \ x^8 \ \left( 49 \ y^2 + z^2 \right) + 42 \ x^4 \ \left( 47 \ y^6 + 15 \ y^4 \ z^2 \right) - 18 \ x^2 \ \left( 23 \ y^8 + 14 \ y^6 \ z^2 \right) \right)$	$\sqrt{\frac{2431}{2}} \; \; x \; y \; \left(- 99 \; x^8  - 91 \; y^8  - 72 \; y^6 \; z^2  + 12 \; x^6 \; \left(97 \; y^2  + 6 \; z^2\right)  - 126 \; x^4 \; \left(19 \; y^4  + 4 \; y^2 \; z^2\right)  + 36 \; x^2 \; \left(31 \; y^6  + 14 \; y^4 \; z^2\right)\right)$

 $n=9 \ By(A9/r^21)$ :

	Re	Im
- 9	$\sqrt{\frac{2431}{2}} \times y \left(91 \times ^8 + 99 \times ^8 - 72 \times ^6 \times ^2 - 36 \times ^6 \left(31 \times ^2 - 2 \times ^2\right) + 126 \times ^4 \left(19 \times ^4 - 4 \times ^2 \times ^2\right) - 12 \times ^2 \left(97 \times ^6 - 42 \times ^4 \times ^2\right)\right)$	$\sqrt{\frac{2431}{2}}  \left(9 \; x^{10} - 10 \; y^{10} + 9 \; y^8 \; z^2 + 9 \; x^8 \; \left(-46 \; y^2 + z^2\right) \; + \; 42 \; x^6 \; \left(47 \; y^4 - 6 \; y^2 \; z^2\right) \; - \; 126 \; x^4 \; \left(16 \; y^6 - 5 \; y^4 \; z^2\right) \; + \; 63 \; x^2 \; \left(7 \; y^8 - 4 \; y^6 \; z^2\right)\right)$
- 8	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$24\sqrt{2431}xz\left(x^{8}+12y^{8}-7y^{6}z^{2}+x^{6}\left(-39y^{2}+z^{2}\right)+21x^{4}\left(7y^{4}-y^{2}z^{2}\right)-35x^{2}\left(3y^{6}-y^{4}z^{2}\right)\right)$
-7	$-3\sqrt{\frac{143}{2}}xy\left(59x^8-36x^6\left(11y^2+26z^2\right)+42x^4\left(y^4+188y^2z^2-16z^4\right)-7y^4\left(11y^4-216y^2z^2+96z^4\right)+140x^2\left(3y^6-66y^4z^2+16y^2z^4\right)\right)$	$-3\sqrt{\frac{143}{2}}\left(7x^{10}-105x^{8}\left(2y^{2}+z^{2}\right)+14x^{6}\left(27y^{4}+258y^{2}z^{2}-8z^{4}\right)+y^{6}\left(10y^{4}-201y^{2}z^{2}+112z^{4}\right)+42x^{4}\left(8y^{6}-255y^{4}z^{2}+40y^{2}z^{4}\right)-3x^{2}\left(83y^{8}-1652y^{6}z^{2}+560y^{4}z^{4}\right)\right)$
- 6	$2\sqrt{858} \ y \ z \ \left(-141 \ x^8 + 33 \ y^8 - 206 \ y^6 \ z^2 + 84 \ y^4 \ z^4 + 14 \ x^6 \ \left(51 \ y^2 + 43 \ z^2\right) + 42 \ x^4 \ \left(6 \ y^4 - 105 \ y^2 \ z^2 + 10 \ z^4\right) - 6 \ x^2 \ \left(95 \ y^6 - 581 \ y^4 \ z^2 + 140 \ y^2 \ z^4\right)\right)$	$-4\sqrt{858} \times z \left(9 \times ^8 - 3 \times ^6 \left(75  \text{y}^2 + 11  \text{z}^2\right) + 21 \times ^4 \left(11  \text{y}^4 + 53  \text{y}^2  \text{z}^2 - 2  \text{z}^4\right) - 3  \text{y}^4 \left(36  \text{y}^4 - 217  \text{y}^2  \text{z}^2 + 70  \text{z}^4\right) + 7 \times ^2 \left(51  \text{y}^6 - 365  \text{y}^4  \text{z}^2 + 60  \text{y}^2  \text{z}^4\right)\right)$
- 5	$3\sqrt{1430} \times y \left(7 \times ^8 + 11 \times ^8 - 372 \times ^6 \times ^2 + 1008 \times ^4 \times ^4 - 224 \times ^2 \times ^6 - 4 \times ^6 \times ^6 \times ^4 \times ^2 + 51 \times ^2 \right) - 42 \times ^4 \times ^4 \times ^2 \times ^2 \times ^2 \times ^2 \times ^4 \times ^4$	$3\sqrt{1430}\left(x^{10}-2y^{10}+69y^8z^2-196y^6z^4+56y^4z^6-9x^8\left(2y^2+3z^2\right)-14x^6\left(y^4-42y^2z^2-2z^4\right)+14x^4\left(2y^6-15y^4z^2-90y^2z^4+4z^6\right)+21x^2\left(y^8-36y^6z^2+100y^4z^4-16y^2z^6\right)\right)$
-4	$6\sqrt{1001} \text{ y z } \left(27 \text{ x}^8 + 11 \text{ y}^8 - 112 \text{ y}^6 \text{ z}^2 + 168 \text{ y}^4 \text{ z}^4 - 32 \text{ y}^2 \text{ z}^6 - 28 \text{ x}^6 \left(\text{y}^2 + 8 \text{ z}^2\right) - 14 \text{ x}^4 \left(9 \text{ y}^4 - 40 \text{ y}^2 \text{ z}^2 - 12 \text{ z}^4\right) - 12 \text{ x}^2 \left(5 \text{ y}^6 - 56 \text{ y}^4 \text{ z}^2 + 84 \text{ y}^2 \text{ z}^4 - 8 \text{ z}^6\right)\right)$	$24\sqrt{1001}xz\left(x^{8}+12y^{8}-119y^{6}z^{2}+168y^{4}z^{4}-24y^{2}z^{6}-x^{6}\left(15y^{2}+7z^{2}\right)-21x^{4}\left(y^{4}-7y^{2}z^{2}\right)+x^{2}\left(7y^{6}+35y^{4}z^{2}-168y^{2}z^{4}+8z^{6}\right)\right)$
- 3	$\sqrt{462} \times y \left(-19 \times ^8 + 33 \times ^8 - 1428 \times ^6 \times ^2 + 6048 \times ^4 \times ^4 - 4704 \times ^2 \times ^6 + 384 \times ^8 + \times ^6 \left(-24 \times ^2 + 756 \times ^2\right) + 42 \times ^4 \left(y^4 + 2 \times ^2 \times ^2 - 64 \times ^4\right) + 20 \times ^2 \left(4 \times ^6 - 105 \times ^4 \times ^2 + 168 \times ^2 \times ^4 + 56 \times ^6\right)\right)$	$\sqrt{462} \left( -3x^{10} - 10y^{10} + 441y^8z^2 - 1932y^6z^4 + 1624y^4z^6 - 192y^2z^8 + 15x^8\left( 2y^2 + 7z^2 \right) + 14x^6\left( 7y^4 - 102y^2z^2 - 18z^4 \right) + 42x^4\left( 2y^6 - 65y^4z^2 + 150y^2z^4 - 4z^6 \right) + 3x^2\left( 3y^8 - 252y^6z^2 + 1540y^4z^4 - 1456y^2z^6 + 64z^8 \right) \right)$
<b>- 2</b>	$-6\sqrt{22} \text{ yz } \left(105 \text{ x}^8 - 77 \text{ y}^8 + 966 \text{ y}^6 \text{ z}^2 - 2100 \text{ y}^4 \text{ z}^4 + 992 \text{ y}^2 \text{ z}^6 - 64 \text{ z}^8 + 14 \text{ x}^6 \left(17 \text{ y}^2 - 87 \text{ z}^2\right) + 42 \text{ x}^4 \left(2 \text{ y}^4 - 35 \text{ y}^2 \text{ z}^2 + 54 \text{ z}^4\right) - 42 \text{ x}^2 \left(3 \text{ y}^6 - 17 \text{ y}^4 \text{ z}^2 - 4 \text{ y}^2 \text{ z}^4 + 16 \text{ z}^6\right)\right)$	$-12\sqrt{22}xz\left(7x^8-84y^8+1029y^6z^2-2142y^4z^4+912y^2z^6-32z^8-63x^6\left(y^2+z^2\right)+x^4\left(-231y^4+903y^2z^2+42z^4\right)-5x^2\left(49y^6-399y^4z^2+420y^2z^4-16z^6\right)\right)$
- 1	$33 \times y \left(7 \times ^8 + 7 \times ^8 - 336 \times ^6 \times ^2 + 1680 \times ^4 \times ^4 - 1792 \times ^2 \times ^6 + 384 \times ^8 + 28 \times ^6 \times ^6 \times ^2 + 42 \times ^4 \times ^4 \times ^2 \times ^2 + 40 \times ^4 \right) + 28 \times ^2 \times$	$3 \left(7 x^{10} - 70 y^{10} + 3423 y^8 z^2 - 17640 y^6 z^4 + 19936 y^4 z^6 - 4992 y^2 z^8 + 128 z^{10} - 21 x^8 \left(2 y^2 + 13 z^2\right) + x^6 \left(-238 y^4 + 2604 y^2 z^2 + 840 z^4\right) - 14 x^4 \left(28 y^6 - 675 y^4 z^2 + 1140 y^2 z^4 - 16 z^6\right) - 3 x^2 \left(91 y^8 - 3332 y^6 z^2 + 11480 y^4 z^4 - 6720 y^2 z^6 + 256 z^8\right)$
0	$11\sqrt{10} \text{ yz } (63 \text{ x}^8 + 63 \text{ y}^8 - 840 \text{ y}^6 \text{ z}^2 + 2016 \text{ y}^4 \text{ z}^4 - 1152 \text{ y}^2 \text{ z}^6 + 128 \text{ z}^8 + 84 \text{ x}^6 (3 \text{ y}^2 - 10 \text{ z}^2) + 126 \text{ x}^4 (3 \text{ y}^4 - 20 \text{ y}^2 \text{ z}^2 + 16 \text{ z}^4) + 36 \text{ x}^2 (7 \text{ y}^6 - 70 \text{ y}^4 \text{ z}^2 + 112 \text{ y}^2 \text{ z}^4 - 32 \text{ z}^6))$	0
1	$-33 \times y \left(7 \times ^8+7 \times ^8-336 \times ^6 \times ^2+1680 \times ^4 \times ^4-1792 \times ^2 \times ^6+384 \times ^8+28 \times ^6 \times ^2-12 \times ^2\right)+42 \times ^4 \left(y^4-24 \times ^2 \times ^2+40 \times ^4\right)+28 \times ^2 \left(y^6-36 \times ^4 \times ^2+120 \times ^2 \times ^2+64 \times ^6\right)$	$3 \left(7  x^{10} - 70  y^{10} + 3423  y^8  z^2 - 17640  y^6  z^4 + 19936  y^4  z^6 - 4992  y^2  z^8 + 128  z^{10} - 21  x^8  \left(2  y^2 + 13  z^2\right) + x^6  \left(-238  y^4 + 2604  y^2  z^2 + 840  z^4\right) - 14  x^4  \left(28  y^6 - 675  y^4  z^2 + 1140  y^2  z^4 - 16  z^6\right) - 3  x^2  \left(91  y^8 - 3332  y^6  z^2 + 11480  y^4  z^4 - 6720  y^2  z^6 + 256  z^8\right)$
2	$-6\sqrt{22} y z \left(105 x^8 - 77 y^8 + 966 y^6 z^2 - 2100 y^4 z^4 + 992 y^2 z^6 - 64 z^8 + 14 x^6 \left(17 y^2 - 87 z^2\right) + 42 x^4 \left(2 y^4 - 35 y^2 z^2 + 54 z^4\right) - 42 x^2 \left(3 y^6 - 17 y^4 z^2 - 4 y^2 z^4 + 16 z^6\right)\right)$	$12\sqrt{22} \times z \left(7 \times ^8 - 84 \text{ y}^8 + 1029 \text{ y}^6 \text{ z}^2 - 2142 \text{ y}^4 \text{ z}^4 + 912 \text{ y}^2 \text{ z}^6 - 32 \text{ z}^8 - 63 \text{ x}^6 \left(\text{y}^2 + \text{z}^2\right) + \text{x}^4 \left(-231 \text{ y}^4 + 903 \text{ y}^2 \text{ z}^2 + 42 \text{ z}^4\right) - 5 \text{ x}^2 \left(49 \text{ y}^6 - 399 \text{ y}^4 \text{ z}^2 + 420 \text{ y}^2 \text{ z}^4 - 16 \text{ z}^6\right)\right)$
3	$\sqrt{462} \times y \left(19 \times ^8 - 33 \times ^8 + 1428 \times ^6 \times ^2 - 6048 \times ^4 \times ^4 + 4704 \times ^2 \times ^6 - 384 \times ^8 + 12 \times ^6 \left(2 \times ^2 - 63 \times ^2\right) - 42 \times ^4 \left(y^4 + 2 \times ^2 \times ^2 - 64 \times ^4\right) - 20 \times ^2 \left(4 \times ^6 - 105 \times ^4 \times ^2 + 168 \times ^2 \times ^4 + 56 \times ^6\right)\right)$	$\sqrt{462} \left( -3x^{10} - 10y^{10} + 441y^{8}z^{2} - 1932y^{6}z^{4} + 1624y^{4}z^{6} - 192y^{2}z^{8} + 15x^{8}\left( 2y^{2} + 7z^{2} \right) + 14x^{6}\left( 7y^{4} - 102y^{2}z^{2} - 18z^{4} \right) + 42x^{4}\left( 2y^{6} - 65y^{4}z^{2} + 150y^{2}z^{4} - 4z^{6} \right) + 3x^{2}\left( 3y^{8} - 252y^{6}z^{2} + 1540y^{4}z^{4} - 1456y^{2}z^{6} + 64z^{8} \right) \right)$
4	$6\sqrt{1001} \text{ y z } \left(27 \text{ x}^8 + 11 \text{ y}^8 - 112 \text{ y}^6 \text{ z}^2 + 168 \text{ y}^4 \text{ z}^4 - 32 \text{ y}^2 \text{ z}^6 - 28 \text{ x}^6 \left(\text{y}^2 + 8 \text{ z}^2\right) - 14 \text{ x}^4 \left(9 \text{ y}^4 - 40 \text{ y}^2 \text{ z}^2 - 12 \text{ z}^4\right) - 12 \text{ x}^2 \left(5 \text{ y}^6 - 56 \text{ y}^4 \text{ z}^2 + 84 \text{ y}^2 \text{ z}^4 - 8 \text{ z}^6\right)\right)$	$-24\sqrt{1001}xz\left(x^{8}+12y^{8}-119y^{6}z^{2}+168y^{4}z^{4}-24y^{2}z^{6}-x^{6}\left(15y^{2}+7z^{2}\right)-21x^{4}\left(y^{4}-7y^{2}z^{2}\right)+x^{2}\left(7y^{6}+35y^{4}z^{2}-168y^{2}z^{4}+8z^{6}\right)\right)$
5	$-3\sqrt{1430} \times y \left(7 \times^8 + 11 y^8 - 372 y^6 z^2 + 1008 y^4 z^4 - 224 y^2 z^6 - 4 x^6 (4 y^2 + 51 z^2) - 42 x^4 (y^4 - 18 y^2 z^2 - 8 z^4) - 4 x^2 (2 y^6 - 147 y^4 z^2 + 560 y^2 z^4 - 56 z^6)\right)$	$3\sqrt{1430} \left(x^{10} - 2y^{10} + 69y^8z^2 - 196y^6z^4 + 56y^4z^6 - 9x^8\left(2y^2 + 3z^2\right) - 14x^6\left(y^4 - 42y^2z^2 - 2z^4\right) + 14x^4\left(2y^6 - 15y^4z^2 - 90y^2z^4 + 4z^6\right) + 21x^2\left(y^8 - 36y^6z^2 + 100y^4z^4 - 16y^2z^6\right)\right)$
6	$2\sqrt{858}yz\left(-141x^{8}+33y^{8}-206y^{6}z^{2}+84y^{4}z^{4}+14x^{6}\left(51y^{2}+43z^{2}\right)+42x^{4}\left(6y^{4}-105y^{2}z^{2}+10z^{4}\right)-6x^{2}\left(95y^{6}-581y^{4}z^{2}+140y^{2}z^{4}\right)\right)$	$4\sqrt{858}xz\left(9x^8-3x^6\left(75y^2+11z^2\right)+21x^4\left(11y^4+53y^2z^2-2z^4\right)-3y^4\left(36y^4-217y^2z^2+70z^4\right)+7x^2\left(51y^6-365y^4z^2+60y^2z^4\right)\right)$
7	$3\sqrt{\frac{143}{2}} \times y \left(59 \times ^8 - 36 \times ^6 \left(11 \times ^2 + 26 \times ^2\right) + 42 \times ^4 \left(y^4 + 188 \times ^2 \times ^2 - 16 \times ^4\right) - 7 \times ^4 \left(11 \times ^4 - 216 \times ^2 \times ^2 + 96 \times ^4\right) + 140 \times ^2 \left(3 \times ^6 - 66 \times ^4 \times ^2 + 16 \times ^2 \times ^2\right)\right)$	$-3\sqrt{\frac{143}{2}}\left(7x^{10}-105x^{8}\left(2y^{2}+z^{2}\right)+14x^{6}\left(27y^{4}+258y^{2}z^{2}-8z^{4}\right)+y^{6}\left(10y^{4}-201y^{2}z^{2}+112z^{4}\right)+42x^{4}\left(8y^{6}-255y^{4}z^{2}+40y^{2}z^{4}\right)-3x^{2}\left(83y^{8}-1652y^{6}z^{2}+560y^{4}z^{4}\right)\right)$
8	$3\sqrt{2431}\ y\ z\ \left(75\ x^8+11\ y^8-8\ y^6\ z^2+x^6\ \left(-756\ y^2+56\ z^2\right)+14\ x^4\ \left(87\ y^4-20\ y^2\ z^2\right)+x^2\ \left(-372\ y^6+168\ y^4\ z^2\right)\right)$	$-24\sqrt{2431}xz\left(x^{8}+12y^{8}-7y^{6}z^{2}+x^{6}\left(-39y^{2}+z^{2}\right)+21x^{4}\left(7y^{4}-y^{2}z^{2}\right)-35x^{2}\left(3y^{6}-y^{4}z^{2}\right)\right)$
9	$\sqrt{\frac{2431}{2}} \; \; x \; y \; \left(-91 \; x^8  - 99 \; y^8  + 72 \; y^6 \; z^2  + 36 \; x^6 \; \left(31 \; y^2  - 2 \; z^2\right)  - 126 \; x^4 \; \left(19 \; y^4  - 4 \; y^2 \; z^2\right)  + 12 \; x^2 \; \left(97 \; y^6  - 42 \; y^4 \; z^2\right) \right)$	$\sqrt{\frac{2431}{2}}  \left(9 \; x^{10} - 10 \; y^{10} + 9 \; y^8 \; z^2 + 9 \; x^8 \; \left(-46 \; y^2 + z^2\right) + 42 \; x^6 \; \left(47 \; y^4 - 6 \; y^2 \; z^2\right) - 126 \; x^4 \; \left(16 \; y^6 - 5 \; y^4 \; z^2\right) + 63 \; x^2 \; \left(7 \; y^8 - 4 \; y^6 \; z^2\right)\right)$

 $n=9 \ Bz(A9/r^21)$ :

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Re	Im
$19 \sqrt{\frac{2431}{2}} x (x^8 - 36 x^6 y^2 + 126 x^4 y^4 - 84 x^2 y^6 + 9 y^8) z$	$-19  \sqrt{\frac{2431}{2}}  y  \left(9  x^8 - 84  x^6  y^2 + 126  x^4  y^4 - 36  x^2  y^6 + y^8 \right)  z$
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$24  \sqrt{2431}   x  y  \left( x^6 - 7  x^4  y^2 + 7  x^2  y^4 - y^6 \right)  \left( x^2 + y^2 - 18  z^2 \right)$
$-51\sqrt{\frac{143}{2}}x\left(x^6-21x^4y^2+35x^2y^4-7y^6\right)z\left(3x^2+3y^2-16z^2\right)$	$-51\;\sqrt{\frac{_{143}}{^{2}}}\;\;y\;\left(-7\;x^{6}+35\;x^{4}\;y^{2}-21\;x^{2}\;y^{4}+y^{6}\right)\;z\;\left(3\;x^{2}+3\;y^{2}-16\;z^{2}\right)$
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$-4\sqrt{858}xy\left(3x^{4}-10x^{2}y^{2}+3y^{4}\right)\left(3x^{4}+3y^{4}-96y^{2}z^{2}+224z^{4}+6x^{2}\left(y^{2}-16z^{2}\right)\right)$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$-3\sqrt{1430}y\left(5x^4-10x^2y^2+y^4\right)z\left(15x^4+15y^4-140y^2z^2+168z^4+10x^2\left(3y^2-14z^2\right)\right)$
$-6\sqrt{1001}\left(x^4-6x^2y^2+y^4\right)\left(x^6+y^6-42y^4z^2+168y^2z^4-112z^6+3x^4\left(y^2-14z^2\right)+3x^2\left(y^4-28y^2z^2+56z^4\right)\right)$	$24\ \sqrt{1001}\ x\ y\ \left(x^2-y^2\right)\ \left(x^6+y^6-42\ y^4\ z^2+168\ y^2\ z^4-112\ z^6+3\ x^4\ \left(y^2-14\ z^2\right)+3\ x^2\ \left(y^4-28\ y^2\ z^2+56\ z^4\right)\right)$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$13\sqrt{462}y\left(3x^2-y^2\right)z\left(7x^6+7y^6-84y^4z^2+168y^2z^4-64z^6+21x^4\left(y^2-4z^2\right)\right.\\ \left.+21x^2\left(y^4-8y^2z^2+8z^4\right)\right)$
$6\sqrt{22}\left(x^2-y^2\right)\left(7x^8+7y^8-336y^6z^2+1680y^4z^4-1792y^2z^6+384z^8+28x^6\left(y^2-12z^2\right)+42x^4\left(y^4-24y^2z^2+40z^4\right)+28x^2\left(y^6-36y^4z^2+120y^2z^4-64z^6\right)\right)$	$-12\sqrt{22}xy\left(7x^{8}+7y^{8}-336y^{6}z^{2}+1680y^{4}z^{4}-1792y^{2}z^{6}+384z^{8}+28x^{6}\left(y^{2}-12z^{2}\right)+42x^{4}\left(y^{4}-24y^{2}z^{2}+40z^{4}\right)+28x^{2}\left(y^{6}-36y^{4}z^{2}+120y^{2}z^{4}-64z^{6}\right)\right)$
$33 \times z \left(63 \times ^8 + 63 \times ^8 - 840 \times ^6 \times ^2 + 2016 \times ^4 \times ^4 - 1152 \times ^2 \times ^6 + 128 \times ^8 + 84 \times ^6 \left(3 \times ^2 - 10 \times ^2\right) + 126 \times ^4 \left(3 \times ^4 - 20 \times ^2 \times ^2 + 16 \times ^4\right) + 36 \times ^2 \left(7 \times ^6 - 70 \times ^4 \times ^2 + 112 \times ^2 \times ^4 - 32 \times ^6\right)\right)$	$-33 \text{ y z } \left(63 \text{ x}^8+63 \text{ y}^8-840 \text{ y}^6 \text{ z}^2+2016 \text{ y}^4 \text{ z}^4-1152 \text{ y}^2 \text{ z}^6+128 \text{ z}^8+84 \text{ x}^6 \left(3 \text{ y}^2-10 \text{ z}^2\right)+126 \text{ x}^4 \left(3 \text{ y}^4-20 \text{ y}^2 \text{ z}^2+16 \text{ z}^4\right)+36 \text{ x}^2 \left(7 \text{ y}^6-70 \text{ y}^4 \text{ z}^2+112 \text{ y}^2 \text{ z}^4-32 \text{ z}^6\right)\right)$
$-\sqrt{10} \left(63  x^{10} + 63  y^{10} - 3150  y^8  z^2 + 16 800  y^6  z^4 - 20 160  y^4  z^6 + 5760  y^2  z^8 - 256  z^{10} + 315  x^8  \left(y^2 - 10  z^2\right) + 210  x^6  \left(3  y^4 - 60  y^2  z^2 + 80  z^4\right) + 630  x^4  \left(y^6 - 30  y^4  z^2 + 80  y^2  z^4 - 32  z^6\right) + 45  x^2  \left(7  y^8 - 280  y^6  z^2 + 1120  y^4  z^4 - 890  y^8  z^4 + 200  y^8  z^8 + 200 $	96 $y^2 z^6 + 128 z^8)$ 0
$-33 \times z \left(63 \times ^8+63 \times ^8-840 \times ^6 \times ^2+2016 \times ^4 \times ^4-1152 \times ^2 \times ^6+128 \times ^8+84 \times ^6 \left(3 \times ^2-10 \times ^2\right)+126 \times ^4 \left(3 \times ^4-20 \times ^2 \times ^2+16 \times ^4\right)+36 \times ^2 \left(7 \times ^6-70 \times ^4 \times ^2+112 \times ^2 \times ^4-32 \times ^6\right)\right)$	$-33\ y\ z\ \left(63\ x^8+63\ y^8-840\ y^6\ z^2+2016\ y^4\ z^4-1152\ y^2\ z^6+128\ z^8+84\ x^6\ \left(3\ y^2-10\ z^2\right)+126\ x^4\ \left(3\ y^4-20\ y^2\ z^2+16\ z^4\right)+36\ x^2\ \left(7\ y^6-70\ y^4\ z^2+112\ y^2\ z^4-32\ z^6\right)\right)$
$6\sqrt{22}\left(x^2-y^2\right)\left(7x^8+7y^8-336y^6z^2+1680y^4z^4-1792y^2z^6+384z^8+28x^6\left(y^2-12z^2\right)+42x^4\left(y^4-24y^2z^2+40z^4\right)+28x^2\left(y^6-36y^4z^2+120y^2z^4-64z^6\right)\right)$	$12\sqrt{22}xy\left(7x^8+7y^8-336y^6z^2+1680y^4z^4-1792y^2z^6+384z^8+28x^6\left(y^2-12z^2\right)+42x^4\left(y^4-24y^2z^2+40z^4\right)+28x^2\left(y^6-36y^4z^2+120y^2z^4-64z^6\right)\right)$
$13\sqrt{462}x\left(x^2-3y^2\right)z\left(7x^6+7y^6-84y^4z^2+168y^2z^4-64z^6+21x^4\left(y^2-4z^2\right)+21x^2\left(y^4-8y^2z^2+8z^4\right)\right)$	$13\sqrt{462}y\left(3x^2-y^2\right)z\left(7x^6+7y^6-84y^4z^2+168y^2z^4-64z^6+21x^4\left(y^2-4z^2\right)\right.\\ \left.+21x^2\left(y^4-8y^2z^2+8z^4\right)\right)$
$-6\sqrt{1001}\left(x^{4}-6x^{2}y^{2}+y^{4}\right)\left(x^{6}+y^{6}-42y^{4}z^{2}+168y^{2}z^{4}-112z^{6}+3x^{4}\left(y^{2}-14z^{2}\right)+3x^{2}\left(y^{4}-28y^{2}z^{2}+56z^{4}\right)\right)$	$-24\sqrt{\textbf{1001}}xy\left(x^2-y^2\right)\left(x^6+y^6-42y^4z^2+\textbf{168}y^2z^4-\textbf{112}z^6+3x^4\left(y^2-\textbf{14}z^2\right)+3x^2\left(y^4-28y^2z^2+\textbf{56}z^4\right)\right)$
$-3\sqrt{1430} \times \left(x^4 - 10x^2y^2 + 5y^4\right) \times \left(15x^4 + 15y^4 - 140y^2z^2 + 168z^4 + 10x^2\left(3y^2 - 14z^2\right)\right)$	$-3\sqrt{1430}y\left(5x^4-10x^2y^2+y^4\right)z\left(15x^4+15y^4-140y^2z^2+168z^4+10x^2\left(3y^2-14z^2\right)\right)$
$2\sqrt{858}\left(x^{6}-15x^{4}y^{2}+15x^{2}y^{4}-y^{6}\right)\left(3x^{4}+3y^{4}-96y^{2}z^{2}+224z^{4}+6x^{2}\left(y^{2}-16z^{2}\right)\right)$	$4\sqrt{858}xy\left(3x^4-10x^2y^2+3y^4\right)\left(3x^4+3y^4-96y^2z^2+224z^4+6x^2\left(y^2-16z^2\right)\right)$
$51\sqrt{\frac{143}{2}}x\left(x^6-21x^4y^2+35x^2y^4-7y^6\right)z\left(3x^2+3y^2-16z^2\right)$	$-51\sqrt{\frac{_{143}}{^{2}}}y\left(-7x^{6}+35x^{4}y^{2}-21x^{2}y^{4}+y^{6}\right)z\left(3x^{2}+3y^{2}-16z^{2}\right)$
$-3\sqrt{2431}\left(x^{8}-28x^{6}y^{2}+70x^{4}y^{4}-28x^{2}y^{6}+y^{8}\right)\left(x^{2}+y^{2}-18z^{2}\right)$	$-24\sqrt{2431}xy\left(x^{6}-7x^{4}y^{2}+7x^{2}y^{4}-y^{6}\right)\left(x^{2}+y^{2}-18z^{2}\right)$
$-19\sqrt{\frac{2431}{2}}x\left(x^8-36x^6y^2+126x^4y^4-84x^2y^6+9y^8\right)z$	$-19\sqrt{\frac{2431}{2}}y\left(9x^{8}-84x^{6}y^{2}+126x^{4}y^{4}-36x^{2}y^{6}+y^{8}\right)z$

 $n=10 \ Bx(A10/r^{23})$ :



Re	Im
$-10 \qquad \frac{1}{8} \sqrt{\frac{4199}{10}} \ x \left(11  x^{10} - 5  x^8  \left(119  y^2 + 2  z^2\right) - 3  y^8  \left(37  y^2 + 30  z^2\right) + 90  x^6  \left(39  y^4 + 4  y^2  z^2\right) - 210  x^4  \left(23  y^6 + 6  y^4  z^2\right) + 15  x^2  \left(113  y^8 + 56  y^6  z^2\right)\right)$	$\frac{1}{4} \sqrt{\frac{4199}{10}} \ y \left(-60 \ x^{10} + 5 \ y^8 \left(y^2 + z^2\right) + 15 \ x^8 \left(59 \ y^2 + 3 \ z^2\right) - 84 \ x^6 \left(29 \ y^4 + 5 \ y^2 \ z^2\right) + 90 \ x^4 \left(19 \ y^6 + 7 \ y^4 \ z^2\right) - 20 \ x^2 \left(14 \ y^8 + 9 \ y^6 \ z^2\right)\right)$
$-9 \qquad \boxed{ \frac{3}{4}  \sqrt{\frac{4199}{2}}  z  \left(4  x^{10} - 3  y^8  \left(y^2 + z^2\right)  +  84  x^6  y^2  \left(9  y^2 + z^2\right)  -  3  x^8  \left(57  y^2 + z^2\right)  -  42  x^4  \left(17  y^6 + 5  y^4  z^2\right)  +  12  x^2  \left(12  y^8 + 7  y^6  z^2\right) \right)}$	$-\frac{3}{4}\sqrt{\frac{4199}{2}}xyz\left(39x^8+31y^8+24y^6z^2-12x^6\left(37y^2+2z^2\right)+42x^4\left(21y^4+4y^2z^2\right)-12x^2\left(33y^6+14y^4z^2\right)\right)$
$8 \qquad \boxed{\frac{1}{8} \sqrt{221} \ x \ \left(-11 \ x^{10} + x^8 \ \left(361 \ y^2 + 244 \ z^2\right) - 18 \ x^6 \ \left(47 \ y^4 + 440 \ y^2 \ z^2 + 8 \ z^4\right) + 3 \ y^6 \ \left(-25 \ y^4 + 444 \ y^2 \ z^2 + 336 \ z^4\right) - 42 \ x^4 \ \left(11 \ y^6 - 588 \ y^4 \ z^2 - 72 \ y^2 \ z^4\right) + 3 \ x^2 \ \left(227 \ y^8 - 4816 \ y^6 \ z^2 - 1680 \ y^4 \ z^4\right)\right)}$	$\sqrt{221}\ y\ \left(12\ x^{10}-3\ x^{8}\ \left(31\ y^{2}+87\ z^{2}\right)\right.\\ \left.+y^{6}\ \left(y^{4}-17\ y^{2}\ z^{2}-18\ z^{4}\right)\right.\\ \left.+42\ x^{6}\ \left(y^{4}+52\ y^{2}\ z^{2}+3\ z^{4}\right)\right.\\ \left.+18\ x^{4}\ \left(6\ y^{6}-161\ y^{4}\ z^{2}-35\ y^{2}\ z^{4}\right)\right.\\ \left.+x^{2}\ \left(-38\ y^{8}+720\ y^{6}\ z^{2}+378\ y^{4}\ z^{4}\right)\right)$
$7 \qquad \boxed{ \frac{1}{4} \sqrt{\frac{663}{2}} \ z \ \left( -36 \ x^{10} + x^8 \ \left( 867 \ y^2 + 251 \ z^2 \right) - 28 \ x^6 \ \left( 39 \ y^4 + 211 \ y^2 \ z^2 + 4 \ z^4 \right) + 7 \ y^6 \ \left( -3 \ y^4 + 13 \ y^2 \ z^2 + 16 \ z^4 \right) - 42 \ x^4 \ \left( 31 \ y^6 - 285 \ y^4 \ z^2 - 40 \ y^2 \ z^4 \right) + 28 \ x^2 \ \left( 24 \ y^8 - 131 \ y^6 \ z^2 - 60 \ y^4 \ z^4 \right) \right) }$	$\frac{1}{4}\sqrt{\frac{663}{2}}xyz\left(273x^8-183y^8+888y^6z^2+672y^4z^4-84x^6\left(17y^2+22z^2\right)-14x^4\left(15y^4-764y^2z^2-48z^4\right)+4x^2\left(327y^6-2114y^4z^2-560y^2z^4\right)\right)$
$\frac{3}{8}\sqrt{\frac{39}{2}}\times\left(11x^{10}-x^8\left(179y^2+426z^2\right)+x^6\left(-106y^4+7080y^2z^2+1376z^4\right)+14x^4\left(23y^6-186y^4z^2-1584y^2z^4-32z^6\right)-y^4\left(47y^6-1542y^4z^2+2912y^2z^4+2240z^6\right)+x^2\left(191y^8-8568y^6z^2+25760y^4z^4+4480y^2z^6\right)\right)$	$\frac{3}{4}\sqrt{\frac{39}{2}}y\left(-36x^{10}+x^{8}\left(83y^{2}+1371z^{2}\right)+28x^{6}\left(7y^{4}-153y^{2}z^{2}-152z^{4}\right)+y^{4}\left(3y^{6}-93y^{4}z^{2}+128y^{2}z^{4}+224z^{6}\right)+2x^{4}\left(y^{6}-1491y^{4}z^{2}+7840y^{2}z^{4}+560z^{6}\right)-4x^{2}\left(18y^{8}-645y^{6}z^{2}+1512y^{4}z^{4}+560y^{2}z^{6}\right)$
$-\frac{1}{2}\sqrt{\frac{39}{10}}z\left(-180x^{10}+5x^{8}\left(363y^{2}+419z^{2}\right)+28x^{6}\left(90y^{4}-785y^{2}z^{2}-131z^{4}\right)-210x^{4}\left(5y^{6}+35y^{4}z^{2}-178y^{2}z^{4}-4z^{6}\right)+5y^{4}\left(15y^{6}-125y^{4}z^{2}+28y^{2}z^{4}+168z^{6}\right)-20x^{2}\left(75y^{8}-805y^{6}z^{2}+987y^{4}z^{4}+252y^{2}z^{6}\right)\right)$	$-\frac{1}{2}\sqrt{\frac{39}{10}}xyz\left(975x^8+555y^8-5220y^6z^2+4368y^4z^4+3360y^2z^6-300x^6\left(2y^2+37z^2\right)-70x^4\left(51y^4-230y^2z^2-264z^4\right)-20x^2\left(72y^6-1099y^4z^2+1904y^2z^4+168z^6\right)\right)$
$-\frac{1}{4}\sqrt{39} \times \left(11 \times x^{10} - x^8 \left(49 y^2 + 556 z^2\right) - 6 x^6 \left(31 y^4 - 480 y^2 z^2 - 476 z^4\right) - 14 x^4 \left(11 y^6 - 444 y^4 z^2 + 1164 y^2 z^4 + 208 z^6\right) + 3 y^2 \left(9 y^8 - 404 y^6 z^2 + 1624 y^4 z^4 - 672 y^2 z^6 - 448 z^8\right) + x^2 \left(-y^8 + 1568 y^6 z^2 - 14280 y^4 z^4 + 16576 y^2 z^6 + 448 z^8\right)$	$\sqrt{39} \ y \ \left(12 \ x^{10} + x^8 \ \left(19 \ y^2 - 597 \ z^2\right) - 14 \ x^6 \ \left(y^4 + 28 \ y^2 \ z^2 - 213 \ z^4\right) - 6 \ x^4 \ \left(6 \ y^6 - 161 \ y^4 \ z^2 + 105 \ y^2 \ z^4 + 476 \ z^6\right) + y^2 \ \left(y^8 - 41 \ y^6 \ z^2 + 126 \ y^4 \ z^4 + 56 \ y^2 \ z^6 - 112 \ z^8\right) + x^2 \ \left(-14 \ y^8 + 720 \ y^6 \ z^2 - 3486 \ y^4 \ z^4 + 2576 \ y^2 \ z^6 + 336 \ z^8\right)\right)$
$-\frac{3}{2}\sqrt{\frac{39}{2}}z\left(28x^{10}-7x^{8}\left(3y^{2}+59z^{2}\right)-28x^{6}\left(8y^{4}-23y^{2}z^{2}-39z^{4}\right)-2x^{4}\left(133y^{6}-1225y^{4}z^{2}+1218y^{2}z^{4}+332z^{6}\right)+y^{2}\left(7y^{8}-77y^{6}z^{2}+84y^{4}z^{4}+104y^{2}z^{6}-64z^{8}\right)-4x^{2}\left(21y^{8}-329y^{6}z^{2}+861y^{4}z^{4}-420y^{2}z^{6}-16z^{8}\right)$	$\frac{3}{2} \sqrt{\frac{39}{2}} \times y \ z \ \left(91 \ x^8 - 49 \ y^8 + 644 \ y^6 \ z^2 - 1344 \ y^4 \ z^4 + 352 \ y^2 \ z^6 + 128 \ z^8 + 28 \ x^6 \ \left(8 \ y^2 - 47 \ z^2\right) + 14 \ x^4 \ \left(9 \ y^4 - 142 \ y^2 \ z^2 + 240 \ z^4\right) - 4 \ x^2 \ \left(14 \ y^6 + 7 \ y^4 \ z^2 - 504 \ y^2 \ z^4 + 472 \ z^6\right)\right)$
$\frac{1}{8}\sqrt{3} \times \left(77 \times x^{10} + 7 \times x^8 \left(29 \times y^2 - 634 \times z^2\right) + 42 \times x^6 \left(y^4 - 180 \times y^2 \times z^2 + 664 \times z^4\right) - 14 \times x^4 \left(23 \times y^6 - 282 \times y^4 \times z^2 - 1608 \times y^2 \times z^4 + 2896 \times z^6\right) + x^2 \left(-343 \times y^8 + 12824 \times y^6 \times z^2 - 38640 \times y^4 \times z^4 + 448 \times y^2 \times z^6 + 14464 \times z^8\right) - 3 \left(35 \times y^{10} - 1918 \times y^8 \times z^2 + 11088 \times y^6 \times z^4 - 13664 \times y^4 \times z^6 + 2944 \times y^2 \times z^8 + 256 \times z^{10}\right)\right)$ $\frac{1}{4} \times \left(756 \times x^{10} - 63 \times y^{10} + 777 \times y^8 \times z^2 - 1176 \times y^6 \times z^4 - 864 \times y^4 \times z^6 + 1024 \times y^2 \times z^8 + 12824 \times z^6\right) + 84 \times x^6 \left(51 \times y^4 - 431 \times y^2 \times z^2 + 454 \times z^4\right) + 18 \times x^4 \left(147 \times y^6 - 1925 \times y^4 \times z^2 + 1712 \times z^6\right) + 4 \times x^2 \left(126 \times y^8 - 2499 \times y^6 \times z^2 + 8946 \times y^4 \times z^4 - 7920 \times z^2 + 1504 \times z^8\right)$	$\frac{1}{4}\sqrt{3}\ y\ \left(-84\ x^{10}+7\ y^{10}-329\ y^8\ z^2+1344\ y^6\ z^4-112\ y^4\ z^6-1408\ y^2\ z^8+384\ z^{10}-7\ x^8\ \left(47\ y^2-681\ z^2\right)-28\ x^6\ \left(17\ y^4-499\ y^2\ z^2+1044\ z^4\right)-42\ x^4\ \left(7\ y^6-317\ y^4\ z^2+1360\ y^2\ z^4-968\ z^6\right)-4\ x^2\ \left(14\ y^8-945\ y^6\ z^2+6636\ y^4\ z^4-10\ 136\ y^2\ z^6+3264\ z^8\right)\right)$ $-\frac{39}{4}\ x\ y\ z\ \left(21\ x^8+21\ y^8-336\ y^6\ z^2+1008\ y^4\ z^4-768\ y^2\ z^6+128\ z^8+84\ x^6\ \left(y^2-4\ z^2\right)+126\ x^4\ \left(y^4-8\ y^2\ z^2+8\ z^4\right)+12\ x^2\ \left(7\ y^6-84\ y^4\ z^2+168\ y^2\ z^4-64\ z^6\right)\right)$
$-\frac{3}{4}\sqrt{\frac{11}{10}} \ x \ \left(21 \ x^{10} + 21 \ y^{10} - 1260 \ y^8 \ z^2 + 8400 \ y^6 \ z^4 - 13440 \ y^4 \ z^6 + 5760 \ y^2 \ z^8 - 512 \ z^{10} + 105 \ x^8 \ \left(y^2 - 12 \ z^2\right) + 210 \ x^6 \ \left(y^4 - 24 \ y^2 \ z^2 + 40 \ z^4\right) + 210 \ x^4 \ \left(y^6 - 36 \ y^4 \ z^2 + 120 \ y^2 \ z^4 - 64 \ z^6\right) + 15 \ x^2 \ \left(7 \ y^8 - 336 \ y^6 \ z^2 + 1680 \ y^4 \ z^4 - 1792 \ y^2 \ z^6 + 384 \ z^8\right)\right)$	0
$\frac{1}{4}z\left(-756\ x^{10}+63\ y^{10}-777\ y^8\ z^2+1176\ y^6\ z^4+864\ y^4\ z^6-1024\ y^2\ z^8+128\ z^{10}-21\ x^8\ \left(141\ y^2-587\ z^2\right)-84\ x^6\ \left(51\ y^4-431\ y^2\ z^2+454\ z^4\right)-18\ x^4\ \left(147\ y^6-1925\ y^4\ z^2+4172\ y^2\ z^4-1712\ z^6\right)-4\ x^2\ \left(126\ y^8-2499\ y^6\ z^2+8946\ y^4\ z^4-7920\ y^2\ z^6+1504\ z^8\right)\right)$ $\frac{1}{8}\sqrt{3}\ x\ \left(77\ x^{10}+7\ x^8\ \left(29\ y^2-634\ z^2\right)+42\ x^6\ \left(y^4-180\ y^2\ z^2+664\ z^4\right)-14\ x^4\ \left(23\ y^6-282\ y^4\ z^2-1608\ y^2\ z^4+2896\ z^6\right)+x^2\ \left(-343\ y^8+12\ 824\ y^6\ z^2-38\ 640\ y^4\ z^4+448\ y^2\ z^6+14\ 464\ z^8\right)-3\ \left(35\ y^{10}-1918\ y^8\ z^2+11\ 088\ y^6\ z^4-13\ 664\ y^4\ z^6+2944\ y^2\ z^8+256\ z^{10}\right)\right)$	$-\frac{39}{4} \times y \ z \ \left(21 \ x^8 + 21 \ y^8 - 336 \ y^6 \ z^2 + 1008 \ y^4 \ z^4 - 768 \ y^2 \ z^6 + 128 \ z^8 + 84 \ x^6 \ \left(y^2 - 4 \ z^2\right) + 126 \ x^4 \ \left(y^4 - 8 \ y^2 \ z^2 + 8 \ z^4\right) + 12 \ x^2 \ \left(7 \ y^6 - 84 \ y^4 \ z^2 + 168 \ y^2 \ z^4 - 64 \ z^6\right)\right)$ $-\frac{1}{4} \sqrt{3} \ y \ \left(-84 \ x^{10} + 7 \ y^{10} - 329 \ y^8 \ z^2 + 1344 \ y^6 \ z^4 - 112 \ y^4 \ z^6 - 1408 \ y^2 \ z^8 + 384 \ z^{10} - 7 \ x^8 \ \left(47 \ y^2 - 681 \ z^2\right) - 28 \ x^6 \ \left(17 \ y^4 - 499 \ y^2 \ z^2 + 1044 \ z^4\right) - 42 \ x^4 \ \left(7 \ y^6 - 317 \ y^4 \ z^2 + 1360 \ y^2 \ z^4 - 968 \ z^6\right) - 4 \ x^2 \ \left(14 \ y^8 - 945 \ y^6 \ z^2 + 6636 \ y^4 \ z^4 - 10136 \ y^2 \ z^6 + 3264 \ z^8\right)$
$\frac{3}{2} \sqrt{\frac{39}{2}} z \left(28 x^{10} - 7 x^8 \left(3 y^2 + 59 z^2\right) - 28 x^6 \left(8 y^4 - 23 y^2 z^2 - 39 z^4\right) - 2 x^4 \left(133 y^6 - 1225 y^4 z^2 + 1218 y^2 z^4 + 332 z^6\right) + y^2 \left(7 y^8 - 77 y^6 z^2 + 84 y^4 z^4 + 104 y^2 z^6 - 64 z^8\right) - 4 x^2 \left(21 y^8 - 329 y^6 z^2 + 861 y^4 z^4 - 420 y^2 z^6 - 16 z^8\right)\right)$	$\frac{3}{2} \sqrt{\frac{39}{2}} \times y \ z \ \left(91 \ x^8 - 49 \ y^8 + 644 \ y^6 \ z^2 - 1344 \ y^4 \ z^4 + 352 \ y^2 \ z^6 + 128 \ z^8 + 28 \ x^6 \ \left(8 \ y^2 - 47 \ z^2\right) + 14 \ x^4 \ \left(9 \ y^4 - 142 \ y^2 \ z^2 + 240 \ z^4\right) - 4 \ x^2 \ \left(14 \ y^6 + 7 \ y^4 \ z^2 - 504 \ y^2 \ z^4 + 472 \ z^6\right)\right)$
$-\frac{1}{4}\sqrt{39} \times \left(11 \times x^{10} - x^8 \left(49 \times y^2 + 556 \times z^2\right) - 6 \times x^6 \left(31 \times y^4 - 480 \times y^2 \times z^2 - 476 \times z^4\right) - 14 \times x^4 \left(11 \times y^6 - 444 \times y^4 \times z^2 + 1164 \times y^2 \times z^4 + 208 \times z^6\right) + 3 \times y^2 \left(9 \times y^8 - 404 \times y^6 \times z^2 + 1624 \times y^4 \times z^4 - 672 \times y^2 \times z^6 - 448 \times z^8\right) + x^2 \left(-y^8 + 1568 \times y^6 \times z^2 - 14280 \times y^4 \times z^4 + 16576 \times z^2\right)$	$-\sqrt{39} \ \ y \ \left(12 \ x^{10} + x^8 \ \left(19 \ y^2 - 597 \ z^2\right) - 14 \ x^6 \ \left(y^4 + 28 \ y^2 \ z^2 - 213 \ z^4\right) - 6 \ x^4 \ \left(6 \ y^6 - 161 \ y^4 \ z^2 + 105 \ y^2 \ z^4 + 476 \ z^6\right) + y^2 \ \left(y^8 - 41 \ y^6 \ z^2 + 126 \ y^4 \ z^4 + 56 \ y^2 \ z^6 - 112 \ z^8\right) + x^2 \ \left(-14 \ y^8 + 720 \ y^6 \ z^2 - 3486 \ y^4 \ z^4 + 2576 \ y^2 \ z^6 + 336 \ z^8\right)\right)$
$\frac{1}{2} \sqrt{\frac{39}{10}} \ z \ \left(-180 \ x^{10} + 5 \ x^8 \ \left(363 \ y^2 + 419 \ z^2\right) + 28 \ x^6 \ \left(90 \ y^4 - 785 \ y^2 \ z^2 - 131 \ z^4\right) - 210 \ x^4 \ \left(5 \ y^6 + 35 \ y^4 \ z^2 - 178 \ y^2 \ z^4 - 4 \ z^6\right) + 5 \ y^4 \ \left(15 \ y^6 - 125 \ y^4 \ z^2 + 28 \ y^2 \ z^4 + 168 \ z^6\right) - 20 \ x^2 \ \left(75 \ y^8 - 805 \ y^6 \ z^2 + 987 \ y^4 \ z^4 + 252 \ y^2 \ z^6\right)\right)$	$-\frac{1}{2}\sqrt{\frac{39}{10}}xyz\left(975x^8+555y^8-5220y^6z^2+4368y^4z^4+3360y^2z^6-300x^6\left(2y^2+37z^2\right)-70x^4\left(51y^4-230y^2z^2-264z^4\right)-20x^2\left(72y^6-1099y^4z^2+1904y^2z^4+168z^6\right)\right)$
$\frac{3}{8} \sqrt{\frac{39}{2}} \times \left(11  x^{10} - x^8  \left(179  y^2 + 426  z^2\right) + x^6  \left(-106  y^4 + 7080  y^2  z^2 + 1376  z^4\right) + 14  x^4  \left(23  y^6 - 186  y^4  z^2 - 1584  y^2  z^4 - 32  z^6\right) - y^4  \left(47  y^6 - 1542  y^4  z^2 + 2912  y^2  z^4 + 2240  z^6\right) + x^2  \left(191  y^8 - 8568  y^6  z^2 + 25760  y^4  z^4 + 4480  y^2  z^6\right)\right)$	$-\frac{3}{4}\sqrt{\frac{39}{2}}y\left(-36x^{10}+x^{8}\left(83y^{2}+1371z^{2}\right)+28x^{6}\left(7y^{4}-153y^{2}z^{2}-152z^{4}\right)+y^{4}\left(3y^{6}-93y^{4}z^{2}+128y^{2}z^{4}+224z^{6}\right)+2x^{4}\left(y^{6}-1491y^{4}z^{2}+7840y^{2}z^{4}+560z^{6}\right)-4x^{2}\left(18y^{8}-645y^{6}z^{2}+1512y^{4}z^{4}+560y^{2}z^{6}\right)$
$\frac{1}{4} \sqrt{\frac{663}{2}} z \left(36 x^{10} - x^8 \left(867 y^2 + 251 z^2\right) + 7 y^6 \left(3 y^4 - 13 y^2 z^2 - 16 z^4\right) + 28 x^6 \left(39 y^4 + 211 y^2 z^2 + 4 z^4\right) + 42 x^4 \left(31 y^6 - 285 y^4 z^2 - 40 y^2 z^4\right) - 28 x^2 \left(24 y^8 - 131 y^6 z^2 - 60 y^4 z^4\right)\right)$	$\frac{1}{4}\sqrt{\frac{663}{2}}xyz\left(273x^8-183y^8+888y^6z^2+672y^4z^4-84x^6\left(17y^2+22z^2\right)-14x^4\left(15y^4-764y^2z^2-48z^4\right)+4x^2\left(327y^6-2114y^4z^2-560y^2z^4\right)\right)$
$\frac{1}{8}\sqrt{221} \times \left(-11 \times x^{10} + x^8 \left(361 y^2 + 244 z^2\right) - 18 x^6 \left(47 y^4 + 440 y^2 z^2 + 8 z^4\right) + 3 y^6 \left(-25 y^4 + 444 y^2 z^2 + 336 z^4\right) - 42 x^4 \left(11 y^6 - 588 y^4 z^2 - 72 y^2 z^4\right) + 3 x^2 \left(227 y^8 - 4816 y^6 z^2 - 1680 y^4 z^4\right)\right)$	$-\sqrt{221}\ y\ \left(12\ x^{10}-3\ x^{8}\ \left(31\ y^{2}+87\ z^{2}\right)+y^{6}\ \left(y^{4}-17\ y^{2}\ z^{2}-18\ z^{4}\right)+42\ x^{6}\ \left(y^{4}+52\ y^{2}\ z^{2}+3\ z^{4}\right)+18\ x^{4}\ \left(6\ y^{6}-161\ y^{4}\ z^{2}-35\ y^{2}\ z^{4}\right)+x^{2}\ \left(-38\ y^{8}+720\ y^{6}\ z^{2}+378\ y^{4}\ z^{4}\right)\right)$
$\frac{3}{4}\sqrt{\frac{4199}{2}}z\left(-4x^{10}+3y^{8}\left(y^{2}+z^{2}\right)-84x^{6}y^{2}\left(9y^{2}+z^{2}\right)+3x^{8}\left(57y^{2}+z^{2}\right)+42x^{4}\left(17y^{6}+5y^{4}z^{2}\right)-12x^{2}\left(12y^{8}+7y^{6}z^{2}\right)\right)$	$-\frac{_{3}}{^{4}}\sqrt{\frac{_{4199}}{^{2}}}xyz\left(39x^{8}+31y^{8}+24y^{6}z^{2}-12x^{6}\left(37y^{2}+2z^{2}\right)+42x^{4}\left(21y^{4}+4y^{2}z^{2}\right)-12x^{2}\left(33y^{6}+14y^{4}z^{2}\right)\right)$
$\frac{1}{8} \sqrt{\frac{4199}{10}} \times \left(11 \times x^{10} - 5 \times x^8 \left(119 \times y^2 + 2 \times z^2\right) - 3 \times y^8 \left(37 \times y^2 + 30 \times z^2\right) + 90 \times x^6 \left(39 \times y^4 + 4 \times y^2 \times z^2\right) - 210 \times x^4 \left(23 \times y^6 + 6 \times y^4 \times z^2\right) + 15 \times x^2 \left(113 \times y^8 + 56 \times y^6 \times z^2\right)\right)$	$\frac{1}{4} \sqrt{\frac{^{4199}}{^{10}}} \ y \ \left(60 \ x^{10} - 5 \ y^8 \ \left(y^2 + z^2\right) - 15 \ x^8 \ \left(59 \ y^2 + 3 \ z^2\right) + 84 \ x^6 \ \left(29 \ y^4 + 5 \ y^2 \ z^2\right) - 90 \ x^4 \ \left(19 \ y^6 + 7 \ y^4 \ z^2\right) + 20 \ x^2 \ \left(14 \ y^8 + 9 \ y^6 \ z^2\right)\right)$

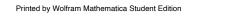
n=10 By  $(A10/r^{23})$ :

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Re	Im
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\frac{1}{4} \sqrt{\frac{4199}{10}} \ x \ \left(5 \ x^{10} - 60 \ y^{10} + 45 \ y^8 \ z^2 + 5 \ x^8 \ \left(-56 \ y^2 + z^2\right) + 90 \ x^6 \ \left(19 \ y^4 - 2 \ y^2 \ z^2\right) - 42 \ x^4 \ \left(58 \ y^6 - 15 \ y^4 \ z^2\right) + 15 \ x^2 \ \left(59 \ y^8 - 28 \ y^6 \ z^2\right)\right)$
$9 \qquad \qquad \frac{3}{4}  \sqrt{\frac{4199}{2}}   x  y  z  \left(31  x^8 + 39  y^8 - 24  y^6  z^2 + x^6  \left(-396  y^2 + 24  z^2\right) + 42  x^4  \left(21  y^4 - 4  y^2  z^2\right) + x^2  \left(-444  y^6 + 168  y^4  z^2\right)\right)$	$\frac{3}{4}\sqrt{\frac{4199}{2}}z\left(3x^{10}-4y^{10}+3y^{8}z^{2}+3x^{8}\left(-48y^{2}+z^{2}\right)+42x^{6}\left(17y^{4}-2y^{2}z^{2}\right)-42x^{4}\left(18y^{6}-5y^{4}z^{2}\right)+3x^{2}\left(57y^{8}-28y^{6}z^{2}\right)\right)$
$8 \qquad \boxed{\frac{1}{8} \sqrt{221} \ y \ \left(-75 \ x^{10} - 11 \ y^{10} + 244 \ y^8 \ z^2 - 144 \ y^6 \ z^4 + 3 \ x^8 \ \left(227 \ y^2 + 444 \ z^2\right) - 42 \ x^6 \ \left(11 \ y^4 + 344 \ y^2 \ z^2 - 24 \ z^4\right) - 18 \ x^4 \ \left(47 \ y^6 - 1372 \ y^4 \ z^2 + 280 \ y^2 \ z^4\right) + x^2 \ \left(361 \ y^8 - 7920 \ y^6 \ z^2 + 3024 \ y^4 \ z^4\right)\right)}$	$-\sqrt{221}\ x\ \left(x^{10}-x^{8}\ \left(38\ y^{2}+17\ z^{2}\right)+18\ x^{6}\ \left(6\ y^{4}+40\ y^{2}\ z^{2}-z^{4}\right)+3\ y^{6}\ \left(4\ y^{4}-87\ y^{2}\ z^{2}+42\ z^{4}\right)+42\ x^{4}\ \left(y^{6}-69\ y^{4}\ z^{2}+9\ y^{2}\ z^{4}\right)-3\ x^{2}\ \left(31\ y^{8}-728\ y^{6}\ z^{2}+210\ y^{4}\ z^{4}\right)\right)$
$7 \qquad -\frac{1}{4}\sqrt{\frac{663}{2}}xyz\left(183x^8-12x^6\left(109y^2+74z^2\right)+14x^4\left(15y^4+604y^2z^2-48z^4\right)+28x^2\left(51y^6-382y^4z^2+80y^2z^4\right)-21\left(13y^8-88y^6z^2+32y^4z^4\right)\right)$	$\frac{1}{4}\sqrt{\frac{663}{2}}z\left(-21x^{10}-36y^{10}+251y^{8}z^{2}-112y^{6}z^{4}+7x^{8}\left(96y^{2}+13z^{2}\right)-14x^{6}\left(93y^{4}+262y^{2}z^{2}-8z^{4}\right)-42x^{4}\left(26y^{6}-285y^{4}z^{2}+40y^{2}z^{4}\right)+x^{2}\left(867y^{8}-5908y^{6}z^{2}+1680y^{4}z^{4}\right)\right)$
$\frac{3}{8}\sqrt{\frac{39}{2}}\text{ y }\left(47\text{ x}^{10}-11\text{ y}^{10}+426\text{ y}^{8}\text{ z}^{2}-1376\text{ y}^{6}\text{ z}^{4}+448\text{ y}^{4}\text{ z}^{6}-x^{8}\left(191\text{ y}^{2}+1542\text{ z}^{2}\right)+x^{6}\left(-322\text{ y}^{4}+8568\text{ y}^{2}\text{ z}^{2}+2912\text{ z}^{4}\right)+2\text{ x}^{4}\left(53\text{ y}^{6}+1302\text{ y}^{4}\text{ z}^{2}-12880\text{ y}^{2}\text{ z}^{4}+1120\text{ z}^{6}\right)+x^{2}\left(179\text{ y}^{8}-7080\text{ y}^{6}\text{ z}^{2}+22176\text{ y}^{4}\text{ z}^{4}-4480\text{ y}^{2}\text{ z}^{6}\right)\right)$	$\frac{3}{4}\sqrt{\frac{39}{2}}x\left(3x^{10}-36y^{10}+1371y^{8}z^{2}-4256y^{6}z^{4}+1120y^{4}z^{6}-3x^{8}\left(24y^{2}+31z^{2}\right)+2x^{6}\left(y^{4}+1290y^{2}z^{2}+64z^{4}\right)+14x^{4}\left(14y^{6}-213y^{4}z^{2}-432y^{2}z^{4}+16z^{6}\right)+x^{2}\left(83y^{8}-4284y^{6}z^{2}+15680y^{4}z^{4}-2240y^{2}z^{6}\right)$
$\frac{1}{2} \sqrt{\frac{39}{10}} \times y \ z \ \left(555 \ x^8 - 180 \ x^6 \ \left(8 \ y^2 + 29 \ z^2\right) + x^4 \ \left(-3570 \ y^4 + 21980 \ y^2 \ z^2 + 4368 \ z^4\right) - 20 \ x^2 \ \left(30 \ y^6 - 805 \ y^4 \ z^2 + 1904 \ y^2 \ z^4 - 168 \ z^6\right) + 15 \ \left(65 \ y^8 - 740 \ y^6 \ z^2 + 1232 \ y^4 \ z^4 - 224 \ y^2 \ z^6\right)\right)$	$\frac{1}{2}\sqrt{\frac{39}{10}}z\left(75x^{10}-180y^{10}+2095y^8z^2-3668y^6z^4+840y^4z^6-125x^8\left(12y^2+5z^2\right)-70x^6\left(15y^4-230y^2z^2-2z^4\right)+210x^4\left(12y^6-35y^4z^2-94y^2z^4+4z^6\right)+5x^2\left(363y^8-4396y^6z^2+7476y^4z^4-1008y^2z^6\right)\right)$
$-\frac{1}{4}\sqrt{39}\ y\ \left(27\ x^{10}-x^8\ \left(y^2+1212\ z^2\right)+x^6\ \left(-154\ y^4+1568\ y^2\ z^2+4872\ z^4\right)-6\ x^4\ \left(31\ y^6-1036\ y^4\ z^2+2380\ y^2\ z^4+336\ z^6\right)+x^2\ \left(-49\ y^8+2880\ y^6\ z^2-16\ 296\ y^4\ z^4+16\ 576\ y^2\ z^6-1344\ z^8\right)+y^2\ \left(11\ y^8-556\ y^6\ z^2+2856\ y^4\ z^4-2912\ y^2\ z^6+448\ z^8\right)$	$-\sqrt{39} \ x \ \left(x^{10} - x^8 \ \left(14 \ y^2 + 41 \ z^2\right) - 18 \ x^6 \ \left(2 \ y^4 - 40 \ y^2 \ z^2 - 7 \ z^4\right) - 14 \ x^4 \ \left(y^6 - 69 \ y^4 \ z^2 + 249 \ y^2 \ z^4 - 4 \ z^6\right) + x^2 \ \left(19 \ y^8 - 392 \ y^6 \ z^2 - 630 \ y^4 \ z^4 + 2576 \ y^2 \ z^6 - 112 \ z^8\right) + 3 \ y^2 \ \left(4 \ y^8 - 199 \ y^6 \ z^2 + 994 \ y^4 \ z^4 - 952 \ y^2 \ z^6 + 112 \ z^8\right)$
$-\frac{3}{2}\sqrt{\frac{39}{2}}xyz\left(49x^8-91y^8+1316y^6z^2-3360y^4z^4+1888y^2z^6-128z^8+28x^6\left(2y^2-23z^2\right)-14x^4\left(9y^4-2y^2z^2-96z^4\right)-4x^2\left(56y^6-497y^4z^2+504y^2z^4+88z^6\right)\right)$	$\frac{3}{2}\sqrt{\frac{39}{2}}z\left(-7x^{10}-28y^{10}+413y^{8}z^{2}-1092y^{6}z^{4}+664y^{4}z^{6}-64y^{2}z^{8}+x^{8}\left(84y^{2}+77z^{2}\right)+14x^{6}\left(19y^{4}-94y^{2}z^{2}-6z^{4}\right)+2x^{4}\left(112y^{6}-1225y^{4}z^{2}+1722y^{2}z^{4}-52z^{6}\right)+x^{2}\left(21y^{8}-644y^{6}z^{2}+2436y^{4}z^{4}-1680y^{2}z^{6}+64z^{8}\right)$
$\frac{1}{8}\sqrt{3} y \left(105 x^{10} - 77 y^{10} + 4438 y^8 z^2 - 27888 y^6 z^4 + 40544 y^4 z^6 - 14464 y^2 z^8 + 768 z^{10} + 7 x^8 \left(49 y^2 - 822 z^2\right) + 14 x^6 \left(23 y^4 - 916 y^2 z^2 + 2376 z^4\right) - 42 x^4 \left(y^6 + 94 y^4 z^2 - 920 y^2 z^4 + 976 z^6\right) + x^2 \left(-203 y^8 + 7560 y^6 z^2 - 22512 y^4 z^4 - 448 y^2 z^6 + 8832 z^8\right)\right)$ $\frac{39}{4} x y z \left(21 x^8 + 21 y^8 - 336 y^6 z^2 + 1008 y^4 z^4 - 768 y^2 z^6 + 128 z^8 + 84 x^6 \left(y^2 - 4 z^2\right) + 126 x^4 \left(y^4 - 8 y^2 z^2 + 8 z^4\right) + 12 x^2 \left(7 y^6 - 84 y^4 z^2 + 168 y^2 z^4 - 64 z^6\right)\right)$	$\frac{1}{4}\sqrt{3} \times \left(7 \times x^{10} - 84 y^{10} + 4767 y^8 z^2 - 29232 y^6 z^4 + 40656 y^4 z^6 - 13056 y^2 z^8 + 384 z^{10} - 7 x^8 \left(8 y^2 + 47 z^2\right) - 42 x^6 \left(7 y^4 - 90 y^2 z^2 - 32 z^4\right) - 14 x^4 \left(34 y^6 - 951 y^4 z^2 + 1896 y^2 z^4 + 8 z^6\right) + x^2 \left(-329 y^8 + 13972 y^6 z^2 - 57120 y^4 z^4 + 40544 y^2 z^6 - 1408 z^8\right)\right)$ $\frac{1}{4}z \left(63 x^{10} - 756 y^{10} + 12327 y^8 z^2 - 38136 y^6 z^4 + 30816 y^4 z^6 - 6016 y^2 z^8 + 128 z^{10} - 21 x^8 \left(24 y^2 + 37 z^2\right) - 294 x^6 \left(9 y^4 - 34 y^2 z^2 - 4 z^4\right) - 18 x^4 \left(238 y^6 - 1925 y^4 z^2 + 1988 y^2 z^4 - 48 z^6\right) + x^2 \left(-2961 y^8 + 36204 y^6 z^2 - 75096 y^4 z^4 + 31680 y^2 z^6 - 1024 z^8\right)$
$-\frac{3}{4}\sqrt{\frac{11}{10}}\ y\ \left(21\ x^{10}+21\ y^{10}-1260\ y^8\ z^2+8400\ y^6\ z^4-13\ 440\ y^4\ z^6+5760\ y^2\ z^8-512\ z^{10}+105\ x^8\ \left(y^2-12\ z^2\right)+210\ x^6\ \left(y^4-24\ y^2\ z^2+40\ z^4\right)+210\ x^4\ \left(y^6-36\ y^4\ z^2+120\ y^2\ z^4-64\ z^6\right)+15\ x^2\ \left(7\ y^8-336\ y^6\ z^2+1680\ y^4\ z^4-1792\ y^2\ z^6+384\ z^8\right)\right)$	0
$-\frac{39}{4} \times y \times \left(21 \times ^8 + 21 y^8 - 336 y^6 z^2 + 1008 y^4 z^4 - 768 y^2 z^6 + 128 z^8 + 84 x^6 \left(y^2 - 4 z^2\right) + 126 x^4 \left(y^4 - 8 y^2 z^2 + 8 z^4\right) + 12 x^2 \left(7 y^6 - 84 y^4 z^2 + 168 y^2 z^4 - 64 z^6\right)\right)$ $\frac{1}{8} \sqrt{3} y \left(105 \times ^{10} - 77 y^{10} + 4438 y^8 z^2 - 27888 y^6 z^4 + 40544 y^4 z^6 - 14464 y^2 z^8 + 768 z^{10} + 7 x^8 \left(49 y^2 - 822 z^2\right) + 14 x^6 \left(23 y^4 - 916 y^2 z^2 + 2376 z^4\right) - 42 x^4 \left(y^6 + 94 y^4 z^2 - 920 y^2 z^4 + 976 z^6\right) + x^2 \left(-203 y^8 + 7560 y^6 z^2 - 22512 y^4 z^4 - 448 y^2 z^6 + 8832 z^8\right)\right)$	$\frac{1}{4}z\left(63x^{10}-756y^{10}+12327y^8z^2-38136y^6z^4+30816y^4z^6-6016y^2z^8+128z^{10}-21x^8\left(24y^2+37z^2\right)-294x^6\left(9y^4-34y^2z^2-4z^4\right)-18x^4\left(238y^6-1925y^4z^2+1988y^2z^4-48z^6\right)+x^2\left(-2961y^8+36204y^6z^2-75096y^4z^4+31680y^2z^6-1024z^8\right)\\ -\frac{1}{4}\sqrt{3}x\left(7x^{10}-84y^{10}+4767y^8z^2-29232y^6z^4+40656y^4z^6-13056y^2z^8+384z^{10}-7x^8\left(8y^2+47z^2\right)-42x^6\left(7y^4-90y^2z^2-32z^4\right)-14x^4\left(34y^6-951y^4z^2+1896y^2z^4+8z^6\right)+x^2\left(-329y^8+13972y^6z^2-57120y^4z^4+40544y^2z^6-1408z^8\right)$
$\frac{3}{2}\sqrt{\frac{39}{2}}xyz\left(49x^8-91y^8+1316y^6z^2-3360y^4z^4+1888y^2z^6-128z^8+28x^6\left(2y^2-23z^2\right)-14x^4\left(9y^4-2y^2z^2-96z^4\right)-4x^2\left(56y^6-497y^4z^2+504y^2z^4+88z^6\right)\right)$	$\frac{3}{2}\sqrt{\frac{39}{2}}z\left(-7x^{10}-28y^{10}+413y^{8}z^{2}-1092y^{6}z^{4}+664y^{4}z^{6}-64y^{2}z^{8}+x^{8}\left(84y^{2}+77z^{2}\right)+14x^{6}\left(19y^{4}-94y^{2}z^{2}-6z^{4}\right)+2x^{4}\left(112y^{6}-1225y^{4}z^{2}+1722y^{2}z^{4}-52z^{6}\right)+x^{2}\left(21y^{8}-644y^{6}z^{2}+2436y^{4}z^{4}-1680y^{2}z^{6}+64z^{8}\right)$
$-\frac{1}{4}\sqrt{39}\ y\ \left(27\ x^{10}-x^8\ \left(y^2+1212\ z^2\right)+x^6\ \left(-154\ y^4+1568\ y^2\ z^2+4872\ z^4\right)-6\ x^4\ \left(31\ y^6-1036\ y^4\ z^2+2380\ y^2\ z^4+336\ z^6\right)+x^2\ \left(-49\ y^8+2880\ y^6\ z^2-16\ 296\ y^4\ z^4+16\ 576\ y^2\ z^6-1344\ z^8\right)+y^2\ \left(11\ y^8-556\ y^6\ z^2+2856\ y^4\ z^4-2912\ y^2\ z^6+448\ z^8\right)$	$\sqrt{39} \ x \ \left(x^{10} - x^8 \ \left(14 \ y^2 + 41 \ z^2\right) - 18 \ x^6 \ \left(2 \ y^4 - 40 \ y^2 \ z^2 - 7 \ z^4\right) - 14 \ x^4 \ \left(y^6 - 69 \ y^4 \ z^2 + 249 \ y^2 \ z^4 - 4 \ z^6\right) + x^2 \ \left(19 \ y^8 - 392 \ y^6 \ z^2 - 630 \ y^4 \ z^4 + 2576 \ y^2 \ z^6 - 112 \ z^8\right) + 3 \ y^2 \ \left(4 \ y^8 - 199 \ y^6 \ z^2 + 994 \ y^4 \ z^4 - 952 \ y^2 \ z^6 + 112 \ z^8\right)$
$-\frac{1}{2}\sqrt{\frac{39}{10}}xyz\left(555x^8-180x^6\left(8y^2+29z^2\right)+x^4\left(-3570y^4+21980y^2z^2+4368z^4\right)-20x^2\left(30y^6-805y^4z^2+1904y^2z^4-168z^6\right)+15\left(65y^8-740y^6z^2+1232y^4z^4-224y^2z^6\right)\right)$	$\frac{1}{2}\sqrt{\frac{39}{10}}z\left(75x^{10}-180y^{10}+2095y^{8}z^{2}-3668y^{6}z^{4}+840y^{4}z^{6}-125x^{8}\left(12y^{2}+5z^{2}\right)-70x^{6}\left(15y^{4}-230y^{2}z^{2}-2z^{4}\right)+210x^{4}\left(12y^{6}-35y^{4}z^{2}-94y^{2}z^{4}+4z^{6}\right)+5x^{2}\left(363y^{8}-4396y^{6}z^{2}+7476y^{4}z^{4}-1008y^{2}z^{6}\right)$
$\frac{3}{8}\sqrt{\frac{39}{2}}\ y\ \left(47\ x^{10}-11\ y^{10}+426\ y^{8}\ z^{2}-1376\ y^{6}\ z^{4}+448\ y^{4}\ z^{6}-x^{8}\ \left(191\ y^{2}+1542\ z^{2}\right)+x^{6}\ \left(-322\ y^{4}+8568\ y^{2}\ z^{2}+2912\ z^{4}\right)+2\ x^{4}\ \left(53\ y^{6}+1302\ y^{4}\ z^{2}-12\ 880\ y^{2}\ z^{4}+1120\ z^{6}\right)+x^{2}\ \left(179\ y^{8}-7080\ y^{6}\ z^{2}+22\ 176\ y^{4}\ z^{4}-4480\ y^{2}\ z^{6}\right)$	$-\frac{3}{4}\sqrt{\frac{39}{2}}x\left(3x^{10}-36y^{10}+1371y^{8}z^{2}-4256y^{6}z^{4}+1120y^{4}z^{6}-3x^{8}\left(24y^{2}+31z^{2}\right)+2x^{6}\left(y^{4}+1290y^{2}z^{2}+64z^{4}\right)+14x^{4}\left(14y^{6}-213y^{4}z^{2}-432y^{2}z^{4}+16z^{6}\right)+x^{2}\left(83y^{8}-4284y^{6}z^{2}+15680y^{4}z^{4}-2240y^{2}z^{6}\right)$
$\frac{1}{4} \sqrt{\frac{663}{2}} \times y \ z \ \left(183 \ x^8 - 12 \ x^6 \ \left(109 \ y^2 + 74 \ z^2\right) + 14 \ x^4 \ \left(15 \ y^4 + 604 \ y^2 \ z^2 - 48 \ z^4\right) + 28 \ x^2 \ \left(51 \ y^6 - 382 \ y^4 \ z^2 + 80 \ y^2 \ z^4\right) - 21 \ \left(13 \ y^8 - 88 \ y^6 \ z^2 + 32 \ y^4 \ z^4\right)\right)$	$\frac{1}{4}\sqrt{\frac{663}{2}}z\left(-21x^{10}-36y^{10}+251y^{8}z^{2}-112y^{6}z^{4}+7x^{8}\left(96y^{2}+13z^{2}\right)-14x^{6}\left(93y^{4}+262y^{2}z^{2}-8z^{4}\right)-42x^{4}\left(26y^{6}-285y^{4}z^{2}+40y^{2}z^{4}\right)+x^{2}\left(867y^{8}-5908y^{6}z^{2}+1680y^{4}z^{4}\right)\right)$
$\frac{1}{8}\sqrt{221}\ y\ \left(-75\ x^{10}-11\ y^{10}+244\ y^{8}\ z^{2}-144\ y^{6}\ z^{4}+3\ x^{8}\ \left(227\ y^{2}+444\ z^{2}\right)-42\ x^{6}\ \left(11\ y^{4}+344\ y^{2}\ z^{2}-24\ z^{4}\right)-18\ x^{4}\ \left(47\ y^{6}-1372\ y^{4}\ z^{2}+280\ y^{2}\ z^{4}\right)+x^{2}\ \left(361\ y^{8}-7920\ y^{6}\ z^{2}+3024\ y^{4}\ z^{4}\right)$	$\sqrt{221} \ x \ \left(x^{10} - x^8 \ \left(38 \ y^2 + 17 \ z^2\right) + 18 \ x^6 \ \left(6 \ y^4 + 40 \ y^2 \ z^2 - z^4\right) + 3 \ y^6 \ \left(4 \ y^4 - 87 \ y^2 \ z^2 + 42 \ z^4\right) + 42 \ x^4 \ \left(y^6 - 69 \ y^4 \ z^2 + 9 \ y^2 \ z^4\right) - 3 \ x^2 \ \left(31 \ y^8 - 728 \ y^6 \ z^2 + 210 \ y^4 \ z^4\right)\right)$
$-\frac{3}{4}\sqrt{\frac{4199}{2}}xyz\left(31x^8+39y^8-24y^6z^2+x^6\left(-396y^2+24z^2\right)+42x^4\left(21y^4-4y^2z^2\right)+x^2\left(-444y^6+168y^4z^2\right)\right)$	$\frac{3}{4}\sqrt{\frac{4199}{2}}z\left(3x^{10}-4y^{10}+3y^{8}z^{2}+3x^{8}\left(-48y^{2}+z^{2}\right)+42x^{6}\left(17y^{4}-2y^{2}z^{2}\right)-42x^{4}\left(18y^{6}-5y^{4}z^{2}\right)+3x^{2}\left(57y^{8}-28y^{6}z^{2}\right)\right)$
$\frac{1}{8}\sqrt{\frac{4199}{10}} y \left(111 x^{10} - 11 y^{10} + 10 y^8 z^2 + x^8 \left(-1695 y^2 + 90 z^2\right) + 210 x^6 \left(23 y^4 - 4 y^2 z^2\right) - 90 x^4 \left(39 y^6 - 14 y^4 z^2\right) + 5 x^2 \left(119 y^8 - 72 y^6 z^2\right)\right)$	$-\frac{1}{4}\sqrt{\frac{4199}{10}} \times \left(5 \times x^{10} - 60 y^{10} + 45 y^8 z^2 + 5 x^8 \left(-56 y^2 + z^2\right) + 90 x^6 \left(19 y^4 - 2 y^2 z^2\right) - 42 x^4 \left(58 y^6 - 15 y^4 z^2\right) + 15 x^2 \left(59 y^8 - 28 y^6 z^2\right)\right)$

 $n=10 \ Bz(A10/r^{23})$ :



Re	Im
$-10 \qquad \frac{21}{8} \sqrt{\frac{4199}{10}} \ \left(  x^{10}  -  45   x^8   y^2  +  210   x^6   y^4  -  210   x^4   y^6  +  45   x^2   y^8  -  y^{10}  \right)   z$	$-\frac{21}{4}\sqrt{\frac{4199}{10}}xy\left(5x^{8}-60x^{6}y^{2}+126x^{4}y^{4}-60x^{2}y^{6}+5y^{8}\right)z$
$-9 \qquad -\frac{1}{4}  \sqrt{\frac{4199}{2}}  x  \left(x^8 - 36  x^6  y^2 + 126  x^4  y^4 - 84  x^2  y^6 + 9  y^8\right)  \left(x^2 + y^2 - 20  z^2\right)$	$\frac{1}{4}  \sqrt{\frac{4199}{2}}  y  \left(9  x^8 - 84  x^6  y^2 + 126  x^4  y^4 - 36  x^2  y^6 + y^8 \right)  \left(x^2 + y^2 - 20  z^2 \right)$
$-8 \qquad -\frac{57}{8} \sqrt{221} \left(x^8 - 28 \ x^6 \ y^2 + 70 \ x^4 \ y^4 - 28 \ x^2 \ y^6 + y^8\right) \ z \ \left(x^2 + y^2 - 6 \ z^2\right)$	$57\sqrt{221}xy\left(x^6-7x^4y^2+7x^2y^4-y^6\right)z\left(x^2+y^2-6z^2\right)$
$-7 \qquad \qquad \frac{_{3}}{^{4}}\sqrt{\frac{_{663}}{^{2}}}x\left(x^{6}-21x^{4}y^{2}+35x^{2}y^{4}-7y^{6}\right)\left(x^{4}+y^{4}-36y^{2}z^{2}+96z^{4}+2x^{2}\left(y^{2}-18z^{2}\right)\right)$	$\frac{3}{4} \ \sqrt{\frac{663}{2}} \ y \ \left(-7 \ x^6 + 35 \ x^4 \ y^2 - 21 \ x^2 \ y^4 + y^6\right) \ \left(x^4 + y^4 - 36 \ y^2 \ z^2 + 96 \ z^4 + 2 \ x^2 \ \left(y^2 - 18 \ z^2\right)\right)$
$-6 \qquad \qquad \frac{17}{8}  \sqrt{\frac{39}{2}}  \left( x^6 - 15   x^4   y^2 + 15   x^2   y^4 - y^6  \right)  z  \left( 15   x^4 + 15   y^4 - 160   y^2   z^2 + 224   z^4 + 10   x^2   \left( 3   y^2 - 16   z^2  \right)  \right)$	$-\frac{17}{4}\sqrt{\frac{39}{2}}xy\left(3x^4-10x^2y^2+3y^4\right)z\left(15x^4+15y^4-160y^2z^2+224z^4+10x^2\left(3y^2-16z^2\right)\right)$
$-5 \qquad -\frac{3}{2} \sqrt{\frac{39}{10}} \ x \ \left(x^4 - 10 \ x^2 \ y^2 + 5 \ y^4\right) \ \left(5 \ x^6 + 5 \ y^6 - 240 \ y^4 \ z^2 + 1120 \ y^2 \ z^4 - 896 \ z^6 + 15 \ x^4 \ \left(y^2 - 16 \ z^2\right) + 5 \ x^2 \ \left(3 \ y^4 - 96 \ y^2 \ z^2 + 224 \ z^4\right)\right)$	$\frac{3}{2}\sqrt{\frac{39}{10}}y\left(5x^4-10x^2y^2+y^4\right)\left(5x^6+5y^6-240y^4z^2+1120y^2z^4-896z^6+15x^4\left(y^2-16z^2\right)+5x^2\left(3y^4-96y^2z^2+224z^4\right)\right)$
$-4 \qquad -\frac{21}{4}\sqrt{39} \left(x^4-6 \ x^2 \ y^2+y^4\right) \ z \ \left(5 \ x^6+5 \ y^6-70 \ y^4 \ z^2+168 \ y^2 \ z^4-80 \ z^6+5 \ x^4 \ \left(3 \ y^2-14 \ z^2\right) +x^2 \ \left(15 \ y^4-140 \ y^2 \ z^2+168 \ z^4\right) \right)$	$21\sqrt{39}xy\left(x^2-y^2\right)z\left(5x^6+5y^6-70y^4z^2+168y^2z^4-80z^6+5x^4\left(3y^2-14z^2\right)+x^2\left(15y^4-140y^2z^2+168z^4\right)\right)$
$-3 \qquad \boxed{\frac{7}{2}  \sqrt{\frac{39}{2}}  x  \left(x^2 - 3  y^2\right)  \left(x^8 + y^8 - 56  y^6  z^2 + 336  y^4  z^4 - 448  y^2  z^6 + 128  z^8 + 4  x^6  \left(y^2 - 14  z^2\right) + 6  x^4  \left(y^4 - 28  y^2  z^2 + 56  z^4\right) + 4  x^2  \left(y^6 - 42  y^4  z^2 + 168  y^2  z^4 - 112  z^6\right)\right)}$	$\frac{7}{2}\sqrt{\frac{39}{2}}y\left(-3x^2+y^2\right)\left(x^8+y^8-56y^6z^2+336y^4z^4-448y^2z^6+128z^8+4x^6\left(y^2-14z^2\right)+6x^4\left(y^4-28y^2z^2+56z^4\right)+4x^2\left(y^6-42y^4z^2+168y^2z^4-112z^6\right)\right)$
$-2 \qquad \begin{vmatrix} \sqrt{3} \\ 8 \end{vmatrix} \sqrt{3}  \left(x^2 - y^2\right) z  \left(21  x^8 + 21  y^8 - 336  y^6  z^2 + 1008  y^4  z^4 - 768  y^2  z^6 + 128  z^8 + 84  x^6  \left(y^2 - 4  z^2\right) + 126  x^4  \left(y^4 - 8  y^2  z^2 + 8  z^4\right) + 12  x^2  \left(7  y^6 - 84  y^4  z^2 + 168  y^2  z^4 - 64  z^6\right) \right)$ $-1 \qquad \left(-\frac{3}{4}  x  \left(21  x^{10} + 21  y^{10} - 1260  y^8  z^2 + 8400  y^6  z^4 - 13440  y^4  z^6 + 5760  y^2  z^8 - 512  z^{10} + 105  x^8  \left(y^2 - 12  z^2\right) + 210  x^6  \left(y^4 - 24  y^2  z^2 + 40  z^4\right) + 210  x^4  \left(y^6 - 36  y^4  z^2 + 120  y^2  z^4 - 64  z^6\right) + 15  x^2  \left(7  y^8 - 336  y^6  z^2 + 1680  y^4  z^4 - 1792  y^2  z^6 + 384  z^8\right) \right)$	$-\frac{39}{4}\sqrt{3} \times y \times \left(21 \times 8 + 21 y^8 - 336 y^6 z^2 + 1008 y^4 z^4 - 768 y^2 z^6 + 128 z^8 + 84 x^6 \left(y^2 - 4 z^2\right) + 126 x^4 \left(y^4 - 8 y^2 z^2 + 8 z^4\right) + 12 x^2 \left(7 y^6 - 84 y^4 z^2 + 168 y^2 z^4 - 64 z^6\right)\right)$ $\frac{3}{4}y \left(21 \times x^{10} + 21 y^{10} - 1260 y^8 z^2 + 8400 y^6 z^4 - 13440 y^4 z^6 + 5760 y^2 z^8 - 512 z^{10} + 105 x^8 \left(y^2 - 12 z^2\right) + 210 x^6 \left(y^4 - 24 y^2 z^2 + 40 z^4\right) + 210 x^4 \left(y^6 - 36 y^4 z^2 + 120 y^2 z^4 - 64 z^6\right) + 15 x^2 \left(7 y^8 - 336 y^6 z^2 + 1680 y^4 z^4 - 1792 y^2 z^6 + 384 z^8\right)\right)$
$0 \qquad \qquad \left  \begin{array}{c} \frac{1}{4} \sqrt{\frac{11}{10}} \ z \ \left( -693 \ x^{10} - 693 \ y^{10} + 11550 \ y^8 \ z^2 - 36960 \ y^6 \ z^4 + 31680 \ y^4 \ z^6 - 7040 \ y^2 \ z^8 + 256 \ z^{10} - 1155 \ x^8 \ \left( 3 \ y^2 - 10 \ z^2 \right) - 2310 \ x^6 \left( 3 \ y^4 - 20 \ y^2 \ z^2 + 16 \ z^4 \right) - 990 \ x^4 \left( 7 \ y^6 - 70 \ y^4 \ z^2 + 112 \ y^2 \ z^4 - 32 \ z^6 \right) - 55 \ x^2 \left( 63 \ y^8 - 840 \ y^6 \ z^2 + 2016 \ y^4 \ z^4 - 1152 \ y^2 \ z^6 \right) + 2016 \ y^4 \ z^4 - 1152 \ y^2 \ z^6 + 2016 \ y^4 \ z^4 - 1152 \ y^2 \ z^6 + 2016 \ y^4 \ z^4 - 1152 \ y^2 \ z^6 + 2016 \ y^4 \ z^4 - 1152 \ y^2 \ z^6 + 2016 \ y^4 \ z^4 - 1152 \ y^2 \ z^6 + 2016 \ y^4 \ z^6 - 2016 \ y^4 \ z^6 - 2016 \ y^6 \ z^6 - 2016 \ z^6 \ z^6 - 2016 \ z^6 \ z^6 - 2016 \ z^6 $	$^6$ + 128 $z^8$ ) ) 0
$ \begin{array}{c} \sqrt{ \\ \frac{3}{4}  x  \left( 21  x^{10} + 21  y^{10} - 1260  y^8  z^2 + 8400  y^6  z^4 - 13440  y^4  z^6 + 5760  y^2  z^8 - 512  z^{10} + 105  x^8  \left( y^2 - 12  z^2 \right) + 210  x^6  \left( y^4 - 24  y^2  z^2 + 40  z^4 \right) + 210  x^4  \left( y^6 - 36  y^4  z^2 + 120  y^2  z^4 - 64  z^6 \right) + 15  x^2  \left( 7  y^8 - 336  y^6  z^2 + 1680  y^4  z^4 - 1792  y^2  z^6 + 384  z^8 \right) \right) \\ 2 \\ \frac{39}{8}  \sqrt{3}  \left( x^2 - y^2 \right)  z  \left( 21  x^8 + 21  y^8 - 336  y^6  z^2 + 1008  y^4  z^4 - 768  y^2  z^6 + 128  z^8 + 84  x^6  \left( y^2 - 4  z^2 \right) + 126  x^4  \left( y^4 - 8  y^2  z^2 + 8  z^4 \right) + 12  x^2  \left( 7  y^6 - 84  y^4  z^2 + 168  y^2  z^4 - 64  z^6 \right) \right) \\ \end{array} $	$\frac{3}{4} y \left(21  x^{10} + 21  y^{10} - 1260  y^8  z^2 + 8400  y^6  z^4 - 13440  y^4  z^6 + 5760  y^2  z^8 - 512  z^{10} + 105  x^8  \left(y^2 - 12  z^2\right) + 210  x^6  \left(y^4 - 24  y^2  z^2 + 40  z^4\right) + 210  x^4  \left(y^6 - 36  y^4  z^2 + 120  y^2  z^4 - 64  z^6\right) + 15  x^2  \left(7  y^8 - 336  y^6  z^2 + 1680  y^4  z^4 - 1792  y^2  z^6 + 384  z^8\right)\right)$ $\frac{39}{4} \sqrt{3}  x  y  z  \left(21  x^8 + 21  y^8 - 336  y^6  z^2 + 1008  y^4  z^4 - 768  y^2  z^6 + 128  z^8 + 84  x^6  \left(y^2 - 4  z^2\right) + 126  x^4  \left(y^4 - 8  y^2  z^2 + 8  z^4\right) + 12  x^2  \left(7  y^6 - 84  y^4  z^2 + 168  y^2  z^4 - 64  z^6\right)\right)$
$3 \\ -\frac{7}{2} \sqrt{\frac{39}{2}} \ x \ \left(x^2 - 3 \ y^2\right) \ \left(x^8 + y^8 - 56 \ y^6 \ z^2 + 336 \ y^4 \ z^4 - 448 \ y^2 \ z^6 + 128 \ z^8 + 4 \ x^6 \ \left(y^2 - 14 \ z^2\right) + 6 \ x^4 \ \left(y^4 - 28 \ y^2 \ z^2 + 56 \ z^4\right) + 4 \ x^2 \ \left(y^6 - 42 \ y^4 \ z^2 + 168 \ y^2 \ z^4 - 112 \ z^6\right)\right)$	$\frac{7}{2}\sqrt{\frac{39}{2}}y\left(-3x^2+y^2\right)\left(x^8+y^8-56y^6z^2+336y^4z^4-448y^2z^6+128z^8+4x^6\left(y^2-14z^2\right)+6x^4\left(y^4-28y^2z^2+56z^4\right)+4x^2\left(y^6-42y^4z^2+168y^2z^4-112z^6\right)\right)$
$4 \qquad -\frac{21}{4} \sqrt{39} \left(x^4 - 6 \ x^2 \ y^2 + y^4\right) \ z \ \left(5 \ x^6 + 5 \ y^6 - 70 \ y^4 \ z^2 + 168 \ y^2 \ z^4 - 80 \ z^6 + 5 \ x^4 \ \left(3 \ y^2 - 14 \ z^2\right) + x^2 \ \left(15 \ y^4 - 140 \ y^2 \ z^2 + 168 \ z^4\right)\right)$	$-21\sqrt{39}xy\left(x^2-y^2\right)z\left(5x^6+5y^6-70y^4z^2+168y^2z^4-80z^6+5x^4\left(3y^2-14z^2\right)+x^2\left(15y^4-140y^2z^2+168z^4\right)\right)$
$ 5 \qquad \qquad \frac{3}{2}  \sqrt{\frac{39}{10}}   x  \left(x^4 - 10  x^2  y^2 + 5  y^4\right)  \left(5  x^6 + 5  y^6 - 240  y^4  z^2 + 1120  y^2  z^4 - 896  z^6 + 15  x^4  \left(y^2 - 16  z^2\right) + 5  x^2  \left(3  y^4 - 96  y^2  z^2 + 224  z^4\right)\right) $	$\frac{3}{2} \sqrt{\frac{39}{10}} \ y \ \left(5 \ x^4 - 10 \ x^2 \ y^2 + y^4\right) \ \left(5 \ x^6 + 5 \ y^6 - 240 \ y^4 \ z^2 + 1120 \ y^2 \ z^4 - 896 \ z^6 + 15 \ x^4 \ \left(y^2 - 16 \ z^2\right) + 5 \ x^2 \ \left(3 \ y^4 - 96 \ y^2 \ z^2 + 224 \ z^4\right)\right)$
$ 6 \qquad \qquad \frac{17}{8}  \sqrt{\frac{39}{2}}  \left(  x^6  -  15   x^4   y^2  +  15   x^2   y^4  -  y^6  \right)  z  \left(  15   x^4  +  15   y^4  -  160   y^2   z^2  +  224   z^4  +  10   x^2   \left(  3   y^2  -  16   z^2  \right)  \right) $	$\frac{17}{4}  \sqrt{\frac{39}{2}}   x  y  \left(3  x^4 - 10  x^2  y^2 + 3  y^4\right)  z  \left(15  x^4 + 15  y^4 - 160  y^2  z^2 + 224  z^4 + 10  x^2  \left(3  y^2 - 16  z^2\right)\right)$
$7 \qquad -\frac{3}{4} \sqrt{\frac{663}{2}} \times \left(x^6 - 21 \ x^4 \ y^2 + 35 \ x^2 \ y^4 - 7 \ y^6\right) \ \left(x^4 + y^4 - 36 \ y^2 \ z^2 + 96 \ z^4 + 2 \ x^2 \ \left(y^2 - 18 \ z^2\right)\right)$	$\frac{3}{4} \sqrt{\frac{663}{2}} y \left(-7 x^6 + 35 x^4 y^2 - 21 x^2 y^4 + y^6\right) \left(x^4 + y^4 - 36 y^2 z^2 + 96 z^4 + 2 x^2 \left(y^2 - 18 z^2\right)\right)$
$ 8 \qquad -\frac{57}{8} \sqrt[7]{221} \left(x^8 - 28 \ x^6 \ y^2 + 70 \ x^4 \ y^4 - 28 \ x^2 \ y^6 + y^8\right) \ z \ \left(x^2 + y^2 - 6 \ z^2\right) $	$-57\sqrt{221}xy\left(x^6-7x^4y^2+7x^2y^4-y^6\right)z\left(x^2+y^2-6z^2\right)$
$9 \qquad \qquad \frac{1}{4}  \sqrt{\frac{4199}{2}}    x  \left(  x^8  -  36   x^6   y^2  +  126   x^4   y^4  -  84   x^2   y^6  +  9   y^8 \right)   \left(  x^2  +  y^2  -  20   z^2  \right)$	$\frac{1}{4}  \sqrt{\frac{4199}{2}} \ y  \left(9  x^8 - 84  x^6  y^2 + 126  x^4  y^4 - 36  x^2  y^6 + y^8 \right)  \left(x^2 + y^2 - 20  z^2 \right)$
$10 \qquad \qquad \frac{21}{8} \sqrt{\frac{4199}{10}} \ \left(  x^{10}  -  45   x^8   y^2  +  210   x^6   y^4  -  210   x^4   y^6  +  45   x^2   y^8  -  y^{10}  \right)   z$	$\frac{21}{4} \sqrt{\frac{4199}{10}} \ x \ y \ \left(5 \ x^8 - 60 \ x^6 \ y^2 + 126 \ x^4 \ y^4 - 60 \ x^2 \ y^6 + 5 \ y^8\right) \ z$

 $U_pq$  for p = 2

MaxValue: Unable to decide whether numeric quantity 
$$Cos[2 ArcTan[1 - Power[\ll 2 \gg]]] Sin[2 ArcTan[1 - Power[\ll 2 \gg]]] - Cos[2 ArcTan[1 +  $\sqrt{2}]] Sin[2 ArcTan[1 + \sqrt{2}]]$  is equal to zero. Assuming it is.$$

U\_pq for p = 3

$$q = 0, \frac{1}{\sqrt{7}}$$

 $\underline{\textbf{MaxValue:}} \ \ \textbf{Unable to decide whether numeric quantity Sin[2 ArcTan[Root[1 + Times[\ll2\gg] + Power[\ll2\gg] \&, 3, 0]]] - 5 Cos[2 ArcTan[Root[\Psilus[\ll3\gg] \&, 4, 0]]] + 5 Cos[2 ArcTan[Root[\Psilus[\ll3\gg] \&, 4, 0]]] - 5 Cos[2 ArcTan[Root[\Psilus[\%] \&, 4, 0]]] - 5 Cos[2 ArcTan[R$ 

$$3\sqrt{\frac{5}{7}}$$

General: Further output of MaxValue::ztest1 will be suppressed during this calculation.

$$q = 2, 3\sqrt{\frac{2}{35}}$$
 $q = 3, \frac{4}{\sqrt{35}}$ 
 $U_pq \text{ for } p = 4$ 
 $q = 0, \frac{1}{3}$ 

 $\frac{\textbf{maxValue:}}{\textbf{maxValue:}} \ \textbf{Unable to decide whether numeric quantities} \ \left\{ \textbf{Sin[2 ArcTan[Root[\ll3\gg]]]}^2 - \textbf{7 Cos[2 ArcTan[Root[\maxion[\ma$ 

$$28\sqrt{\frac{2}{5}}$$
 $= 2, \frac{28\sqrt{\frac{2}{5}}}{27}$ 

$$q = 3, \frac{64}{9\sqrt{105}}$$

9 
$$\sqrt{10}$$

$$q = 4, \frac{8\sqrt{\frac{2}{35}}}{35}$$

$$q = 0, \frac{1}{\sqrt{11}}$$

$$q = 1, \frac{1}{4} \sqrt{\frac{399}{55} - \frac{\sqrt{23}}{5}}$$

$$q = 2$$
,  $\sqrt{\frac{2}{385}} \left( 102 - 7 \sqrt{21} \right)$ 

$$q = 3, \frac{73 \sqrt{1}}{16}$$

$$\sqrt{13}$$

 $\frac{1}{1000} \text{MaxValue: Unable to decide whether numeric quantities} \left\{ -\text{Sin}[2\,\text{ArcTan}[\text{Root}[\ll3\gg]]]^2 + 18\,\text{Cos}[2\,\text{ArcTan}[\text{Root}[\ll3\gg]]]^2 + 18\,\text{C$ 

$$q = 2, \frac{3}{20} \sqrt{\frac{3}{91}} \left(25 - 2\sqrt{5}\right)$$

q = 2, 
$$\frac{3}{20} \sqrt{\frac{3}{91}} \left(25 - 2\sqrt{5}\right)$$
  
q = 3,  $\frac{1}{32} \sqrt{\frac{729893 - 17399\sqrt{137}}{1365}}$ 

General: Further output of MaxValue::ztest will be suppressed during this calculation.

```
q = 4, \frac{1089}{125\sqrt{182}}

q = 5, \frac{1152}{25\sqrt{5005}}

q = 6, \frac{32}{\sqrt{3003}}

U_pq for p = 7
U_pq for p = 7

q = 0, \frac{1}{\sqrt{15}}

q = 1, \bigcirc 0.441...

q = 2, \bigcirc 0.523...

q = 3, \frac{\sqrt{\frac{11}{105} \left(14940035 - 37073\sqrt{15565}\right)}}{1800}

q = 4, \frac{\sqrt{\frac{1}{385} \left(247806294 - 5978768\sqrt{114}\right)}}{1125}

q = 5, \frac{57967\sqrt{\frac{13}{66}}}{40500}

q = 6, \frac{1372}{81\sqrt{715}}

q = 7, \frac{32\sqrt{\frac{2}{715}}}{3}

U_pq for p = 8

q = 0, \frac{1}{3}
          q = 0, \frac{1}{\sqrt{17}}
q = 1, 0.415...
q = 2, \frac{36.1...}{3\sqrt{595}}
q = 3, 0.546...
q = 4, \frac{26(289\sqrt{2002} - 37\sqrt{2618})}{490875}
```

$$q = 5, \frac{1}{600} \sqrt{\frac{15108014551 - 219216811\sqrt{281}}{85085}}$$

$$q = 6, \frac{128000}{2401\sqrt{7293}}$$

$$q = 7, \frac{131072\sqrt{\frac{2}{85085}}}{1029}$$

$$q = 8, \frac{128\sqrt{\frac{2}{12155}}}{3}$$

$$U_pq \text{ for } p = 9$$

$$q = 0, \frac{1}{\sqrt{19}}$$

$$q = 1, \bigcirc 0.393...$$

$$q = 2, \frac{\cancel{0}45.3...}{3\sqrt{1045}}$$

$$q = 3, \frac{\cancel{0}76.9...}{\sqrt{21945}}$$

$$q = 4, \bigcirc 0.558...$$

$$q = 5, \frac{1}{294} \sqrt{\frac{1549852157 - 26098357\sqrt{259}}{38038}}$$

$$q = 6, \frac{6\sqrt{\frac{6(173246427.4184039\sqrt{93})}{13585}}}{2401}$$

$$q = 7, \frac{32234193\sqrt{\frac{17}{95895}}}{702464}$$

$$q = 8, \frac{6561}{16\sqrt{461890}}$$

$$q = 9, \frac{256}{\sqrt{230945}}$$

$$U_pq \text{ for } p = 10$$

$$q = 0, \frac{1}{\sqrt{21}}$$

$$q = 1, \quad \bigcirc 0.374...$$

$$q = 2, \quad \bigcirc 0.445...$$

$$q = 3, \quad \frac{\bigcirc 105...}{3\sqrt{5005}}$$

$$q = 4, \quad \bigcirc 0.533...$$

$$q = 5, \quad \frac{\bigcirc 53.4...}{3\sqrt{1001}}$$

$$q = 6, \quad \frac{17\left(-2304452 + 222449\sqrt{6154}\right)}{6223392\sqrt{5005}}$$

$$q = 7, \quad \frac{\sqrt{\frac{22045040266234350363-75847319304885743\sqrt{4281}}{24310}}{44255232}$$

$$q = 8, \quad \frac{81450625\sqrt{\frac{5}{102102}}}{944784}$$

$$q = 9, \quad \frac{5120000\sqrt{\frac{5}{969969}}}{19683}$$

$$q = 10, \quad \frac{512}{\sqrt{969969}}$$