
```

syms X1X2X3 X1X2H12 X1X2 X2X3 H11X3 X1H12 L1 X2 X3 H11 H12 r1 r2 % 13
Parameters
syms C_1 C_2 C_3 C_4 C_5 C_6 C_7 C_8 C_9 C_10 C_11 C_12 C_13 C_14 C_15

```

```

F = [(((1-L1)+((L1 * (1-r1)) * ((1-r1) * 1 + 0)) * (((1 - 2 * ((X1H12)/
3)))))+((L1 * r1) * (1-r1) * 1) * (((X2)/3))+((X2)/3)))+((L1 * r1) *
(r1 * 1 + 0)) * (((1 - 2 * ((H11X3)/3)))))*((1-r2))+((1-L1)+((L1 * (1-r1))
* ((1-r1) * 1 + 0)) * (((1 - 2 * ((H12)/3)))))+((L1 * r1) * (1-r1) * 1)
* (((X1X2)/3))+((X1X2)/3)))+((L1 * r1) * (r1 * 1 + 0)) * (((1 - 2 *
((H11X3)/3)))))*((r2))-C_1,
((((L1 * (1-r1)) * ((1-r1) * 1 + 0)) * (((X1H12)/3)))+((L1 * r1) * (1-r1)
* 1) * (((1 - 2 * ((X2)/3))+((X2)/3)))+((L1 * r1) * (r1 * 1 + 0)) *
((((H11X3)/3)))))*((1-r2))+(((L1 * (1-r1)) * ((1-r1) * 1 + 0)) * (((H12)/
3)))+((L1 * r1) * (1-r1) * 1) * (((1 - 2 * ((X1X2)/3))+((X1X2)/3)))+
((L1 * r1) * (r1 * 1 + 0)) * (((H11X3)/3))))*(r2))-C_2,
((((L1 * (1-r1)) * ((1-r1) * 1 + 0)) * (((X1H12)/3)))+((L1 * r1) * (1-r1)
* 1) * (((X2)/3))+((1 - 2 * ((X2)/3)))))+((L1 * r1) * (r1 * 1 + 0)) *
((((H11X3)/3)))))*((1-r2))+(((L1 * (1-r1)) * ((1-r1) * 1 + 0)) * (((H12)/
3)))+((L1 * r1) * (1-r1) * 1) * (((X1X2)/3))+((1 - 2 * ((X1X2)/3)))))+
((L1 * r1) * (r1 * 1 + 0)) * (((H11X3)/3))))*(r2))-C_3,
((((L1 * (1-r1)) * ((1-r1) * 1 + 0)) * (((X1H12)/3)))+((L1 * r1) * (1-r1)
* 1) * (((1 - 2 * ((X2X3)/3))+((X2X3)/3)))+((L1 * r1) * (r1 * 1 + 0)) *
((((H11)/3)))))*((1-r2))+(((L1 * (1-r1)) * ((1-r1) * 1 + 0)) * (((H12)/3)))+
((L1 * r1) * (1-r1) * 1) * (((1 - 2 * ((X1X2X3)/3))+((X1X2X3)/3)))+((L1
* r1) * (r1 * 1 + 0)) * (((H11)/3))))*(r2))-C_5,
((((L1 * (1-r1)) * ((1-r1) * 1 + 0)) * (((X1H12)/3)))+((L1 * r1) * (1-r1)
* 1) * (((X2X3)/3))+((1 - 2 * ((X2X3)/3)))))+((L1 * r1) * (r1 * 1 + 0)) *
((((H11)/3)))))*((1-r2))+(((L1 * (1-r1)) * ((1-r1) * 1 + 0)) * (((H12)/3)))+
((L1 * r1) * (1-r1) * 1) * (((X1X2X3)/3))+((1 - 2 * ((X1X2X3)/3)))))+((L1
* r1) * (r1 * 1 + 0)) * (((H11)/3))))*(r2))-C_6,
(((1 - 2 * ((X2)/3))*((1-r1))+((X3)/3)*(r1))*((1-r2))+(((1 - 2 * ((X1X2)/
3))*((1-r1))+((X3)/3)*(r1))*((r2))-C_13,
(((X2)/3))*((1-r1))+((X3)/3)*(r1))*((1-r2))+(((X1X2)/3))*((1-r1))+((X3)/
3))*((r1))*((r2))-C_14,
((1-L1)+((L1 * (1-r1)) * ((1-r1) * 1 + 0)) * (((1 - 2 * ((X1X2H12)/3)))))+
((L1 * r1) * (1-r1) * 1) * (((X3)/3))+((X3)/3)))+((L1 * r1) * (r1 * 1 +
0)) * (((1 - 2 * ((H11)/3))))))-C_7,
(((1 - 2 * ((X2)/3))*((1-r1))+((X3)/3)*(r1))*((1-r2))+(((1 - 2 * ((X1X2)/
3))*((1-r1))+((X3)/3)*(r1))*((r2))-C_10,
(((X2)/3))*((1-r1))+((1 - 2 * ((X3)/3))*((r1))*((1-r2))+(((X1X2)/3))*((1-
r1))+((1 - 2 * ((X3)/3))*((r1))*((r2))-C_12,
(((L1 * (1-r1)) * ((1-r1) * 1 + 0)) * (((X1X2H12)/3)))+((L1 * r1) * (1-
r1) * 1) * (((X3)/3))+((1 - 2 * ((X3)/3)))))+((L1 * r1) * (r1 * 1 + 0)) *
((((H11)/3))))))-C_9,
((((X2)/3))*((1-r1))+((1-2*((X3)/3))*((r1))*((1-r2))+(((X1X2)/3))*((1-r1))
+((1-2*((X3)/3))*((r1))*((r2))-C_15,
(((L1 * (1-r1)) * ((1-r1) * 1 + 0)) * (((X1X2H12)/3)))+((L1 *
r1) * (1-r1) * 1) * (((1 - 2 * ((X3)/3))+((X3)/3)))+((L1 * r1)
* (r1 * 1 + 0)) * (((H11)/3))))))-C_8,
(((1-L1)+((L1 * (1-r1)) * ((1-r1) * 1 + 0)) * (((1 - 2 * ((X1H12)/
3)))))+((L1 * r1) * (1-r1) * 1) * (((X2X3)/3))+((X2X3)/3)))+((L1
* r1) * (r1 * 1 + 0)) * (((1 - 2 * ((H11)/3))))))*((1-r2))+((1-L1)+

```

```

(((L1 * (1-r1)) * ((1-r1) * 1 + 0)) * (((1 - 2 * ((H12)/3)))))+(((L1
* r1) * (1-r1) * 1) * (((X1X2X3)/3))+(((X1X2X3)/3)))+(((L1 * r1) *
(r1 * 1 + 0)) * (((1 - 2 * ((H11)/3)))))*((r2))-C_4,
((((X2)/3)*((1-r1))+(((X3)/3))*((r1))*((1-r2))+(((X1X2)/3))*((1-r1))+(((X3)/
3))*((r1))*((r2))-C_11]
V = [X1X2X3 X1X2H12 X1X2 X2X3 H11X3 X1H12 L1 X2 X3 H11 H12 r1 r2
C_1 C_2 C_3 C_4 C_5 C_6 C_7 C_8 C_9 C_10 C_11 C_12 C_13 C_14 C_15]
JF = jacobian(F, V)
B = [zeros(15,13) -eye(15)]

```

```

rank([JF; B]) % nxn that varnish
size([JF; B]) % The size function returns the dimensions of an array
null([JF;B]) % number of overparametrizations

```

$F =$

```

(r2 - 1)*(L1 + L1*r1^2*((2*H11X3)/3 - 1) + L1*((2*X1H12)/3 - 1)*(r1 - 1)^2 +
(2*L1*X2*r1*(r1 - 1))/3 - 1) - r2*(L1 + L1*r1^2*((2*H11X3)/3 - 1) +
L1*((2*H12)/3 - 1)*(r1 - 1)^2 + (2*L1*X1X2*r1*(r1 - 1))/3 - 1) - C_1
r2*((H12*L1*(r1 - 1)^2)/3 +
(H11X3*L1*r1^2)/3 + L1*r1*(X1X2/3 - 1)*(r1 - 1)) - C_2 - (r2 -
1)*((L1*X1H12*(r1 - 1)^2)/3 + (H11X3*L1*r1^2)/3 + L1*r1*(X2/3 - 1)*(r1 - 1))
r2*((H12*L1*(r1 - 1)^2)/3 +
(H11X3*L1*r1^2)/3 + L1*r1*(X1X2/3 - 1)*(r1 - 1)) - C_3 - (r2 -
1)*((L1*X1H12*(r1 - 1)^2)/3 + (H11X3*L1*r1^2)/3 + L1*r1*(X2/3 - 1)*(r1 - 1))
r2*((H12*L1*(r1 - 1)^2)/3 +
(H11*L1*r1^2)/3 + L1*r1*(X1X2X3/3 - 1)*(r1 - 1)) - C_5 - (r2 -
1)*((L1*X1H12*(r1 - 1)^2)/3 + (H11*L1*r1^2)/3 + L1*r1*(X2X3/3 - 1)*(r1 - 1))
r2*((H12*L1*(r1 - 1)^2)/3 +
(H11*L1*r1^2)/3 + L1*r1*(X1X2X3/3 - 1)*(r1 - 1)) - C_6 - (r2 -
1)*((L1*X1H12*(r1 - 1)^2)/3 + (H11*L1*r1^2)/3 + L1*r1*(X2X3/3 - 1)*(r1 - 1))
r2*((X3*r1)/3 + ((2*X1X2)/3 - 1)*(r1 -
1)) - ((X3*r1)/3 + ((2*X2)/3 - 1)*(r1 - 1))*(r2 - 1) - C_13
r2*((X3*r1)/3 -
(X1X2*(r1 - 1))/3) - ((X3*r1)/3 - (X2*(r1 - 1))/3)*(r2 - 1) - C_14
1 - L1 - L1*r1^2*((2*H11)/3 - 1) -
L1*((2*X1X2H12)/3 - 1)*(r1 - 1)^2 - (2*L1*X3*r1*(r1 - 1))/3 - C_7
r2*((X3*r1)/3 + ((2*X1X2)/3 - 1)*(r1 -
1)) - ((X3*r1)/3 + ((2*X2)/3 - 1)*(r1 - 1))*(r2 - 1) - C_10
((X2*(r1 - 1))/3 + r1*((2*X3)/3 -
1))*(r2 - 1) - C_12 - r2*((X1X2*(r1 - 1))/3 + r1*((2*X3)/3 - 1))
(L1*X1X2H12*(r1 -
1)^2)/3 - C_9 + (H11*L1*r1^2)/3 + L1*r1*(X3/3 - 1)*(r1 - 1)
r1*(r2 - 1)*((2*X3)/3 + (X2*(r1 -
1))/3 - 1) - r2*((X1X2*(r1 - 1))/3 + r1*((2*X3)/3 - 1)) - C_15

```

$$\begin{aligned}
& 1)*(L1*r1*(X2/3 - 1) + (L1*X1H12*(2*r1 - 2))/3 + (2*H11X3*L1*r1)/3 + L1*(X2/3 \\
& - 1)*(r1 - 1)), \quad (H12*L1*(r1 - 1)^2)/3 - (L1*X1H12*(r1 - \\
& 1)^2)/3 - L1*r1*(X2/3 - 1)*(r1 - 1) + L1*r1*(X1X2/3 - 1)*(r1 - 1), \quad 0, \quad 0, \\
& -1, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0] \\
& [\quad (L1*r1*r2*(r1 - 1))/3, \quad 0, \quad 0, \quad - \\
& (L1*r1*(r1 - 1)*(r2 - 1))/3, \quad 0, \quad - \\
& (L1*(r1 - 1)^2*(r2 - 1))/3, \\
& r2*((H11*r1^2)/3 + (H12*(r1 - 1)^2)/3 + r1*(X1X2X3/3 - 1)*(r1 - 1)) - (r2 - \\
& 1)*((H11*r1^2)/3 + (X1H12*(r1 - 1)^2)/3 + r1*(X2X3/3 - 1)*(r1 - \\
& 1)), \quad 0, \quad 0, \\
& (L1*r1^2*r2)/3 - (L1*r1^2*(r2 - 1))/3, \quad (L1*r2*(r1 - \\
& 1)^2)/3, \quad r2*((H12*L1*(2*r1 - 2))/3 + L1*r1*(X1X2X3/3 \\
& - 1) + (2*H11*L1*r1)/3 + L1*(X1X2X3/3 - 1)*(r1 - 1)) - (r2 - \\
& 1)*((L1*X1H12*(2*r1 - 2))/3 + L1*r1*(X2X3/3 - 1) + (2*H11*L1*r1)/3 + \\
& L1*(X2X3/3 - 1)*(r1 - 1)), \quad (H12*L1*(r1 - 1)^2)/3 - (L1*X1H12*(r1 \\
& - 1)^2)/3 - L1*r1*(X2X3/3 - 1)*(r1 - 1) + L1*r1*(X1X2X3/3 - 1)*(r1 - 1), \quad 0, \\
& 0, \quad 0, \quad 0, \quad -1, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0] \\
& [\quad (L1*r1*r2*(r1 - 1))/3, \quad 0, \quad 0, \quad - \\
& (L1*r1*(r1 - 1)*(r2 - 1))/3, \quad 0, \quad - \\
& (L1*(r1 - 1)^2*(r2 - 1))/3, \\
& r2*((H11*r1^2)/3 + (H12*(r1 - 1)^2)/3 + r1*(X1X2X3/3 - 1)*(r1 - 1)) - (r2 - \\
& 1)*((H11*r1^2)/3 + (X1H12*(r1 - 1)^2)/3 + r1*(X2X3/3 - 1)*(r1 - \\
& 1)), \quad 0, \quad 0, \\
& (L1*r1^2*r2)/3 - (L1*r1^2*(r2 - 1))/3, \quad (L1*r2*(r1 - \\
& 1)^2)/3, \quad r2*((H12*L1*(2*r1 - 2))/3 + L1*r1*(X1X2X3/3 \\
& - 1) + (2*H11*L1*r1)/3 + L1*(X1X2X3/3 - 1)*(r1 - 1)) - (r2 - \\
& 1)*((L1*X1H12*(2*r1 - 2))/3 + L1*r1*(X2X3/3 - 1) + (2*H11*L1*r1)/3 + \\
& L1*(X2X3/3 - 1)*(r1 - 1)), \quad (H12*L1*(r1 - 1)^2)/3 - (L1*X1H12*(r1 \\
& - 1)^2)/3 - L1*r1*(X2X3/3 - 1)*(r1 - 1) + L1*r1*(X1X2X3/3 - 1)*(r1 - 1), \quad 0, \\
& 0, \quad 0, \quad 0, \quad 0, \quad -1, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0] \\
& [\quad 0, \quad 0, \quad 0, \quad r2*((2*r1)/3 - \\
& 2/3), \quad 0, \\
& 0, \\
& 0, \\
& 0, \quad -((2*r1)/3 - 2/3)*(r2 - 1), \quad (r1*r2)/3 - \\
& (r1*(r2 - 1))/3, \\
& 0, \\
& 0, \\
& r2*(X3/3 + (2*X1X2)/3 - 1) - (r2 - 1)*((2*X2)/3 + X3/3 - \\
& 1), \\
& ((2*X1X2)/3 - 1)*(r1 - 1) - ((2*X2)/3 - 1)*(r1 - 1), \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \\
& 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad -1, \quad 0, \quad 0] \\
& [\quad 0, \quad 0, \quad -r2*(r1/3 - \\
& 1/3), \quad 0, \\
& 0, \\
& 0, \\
& 0, \quad (r1/3 - 1/3)*(r2 - 1), \quad (r1*r2)/3 - \\
& (r1*(r2 - 1))/3, \\
& 0, \\
& 0,
\end{aligned}$$

```

r2*(X3/3 - X1X2/3) + (X2/3 - X3/3)*(r2 -
1),
(X2*(r1 - 1))/3 - (X1X2*(r1 - 1))/3, 0, 0, 0, 0, 0, 0, 0,
0, 0, 0, 0, 0, 0, -1, 0]
[
0, -(2*L1*(r1 - 1)^2)/3,
0,
0,
0,
0,
- r1^2*((2*H11)/3 - 1) - ((2*X1X2H12)/3 - 1)*(r1 - 1)^2
- (2*X3*r1*(r1 - 1))/3 - 1,
0,
-(2*L1*r1*(r1 - 1))/3,
-(2*L1*r1^2)/3,
0,
- 2*L1*r1*((2*H11)/3 - 1) -
(2*L1*X3*r1)/3 - (2*L1*X3*(r1 - 1))/3 - L1*((2*X1X2H12)/3 - 1)*(2*r1 -
2),
0, 0, 0, 0, 0, 0, 0, -1,
0, 0, 0, 0, 0, 0, 0, 0]
[
0,
0, r2*((2*r1)/3 -
2/3),
0,
0,
0,
-((2*r1)/3 - 2/3)*(r2 - 1), (r1*r2)/3 -
(r1*(r2 - 1))/3,
0,
0,
r2*(X3/3 + (2*X1X2)/3 - 1) - (r2 - 1)*((2*X2)/3 + X3/3 -
1),
((2*X1X2)/3 - 1)*(r1 - 1) - ((2*X2)/3 - 1)*(r1 - 1), 0, 0, 0, 0, 0, 0,
0, 0, 0, -1, 0, 0, 0, 0, 0]
[
0,
0, -r2*(r1/3 -
1/3),
0,
0,
0,
0,
(r1/3 - 1/3)*(r2 - 1), (2*r1*(r2 - 1))/3
- (2*r1*r2)/3,
0,
0,
(r2 - 1)*(X2/3 + (2*X3)/3 - 1) - r2*((2*X3)/3 + X1X2/3 -
1),
(X2*(r1 - 1))/3 - (X1X2*(r1 - 1))/3, 0, 0, 0, 0, 0, 0, 0,
0, 0, 0, 0, -1, 0, 0, 0, 0]
[
0, (L1*(r1 - 1)^2)/3,
0,
0,
0,
0,
(H11*r1^2)/3 + (X1X2H12*(r1 -
1)^2)/3 + r1*(X3/3 - 1)*(r1 - 1),
0,
(L1*r1*(r1 - 1))/3,
(L1*r1^2)/3,

```

0,
0,

$r2*(X3/3 - X1X2/3) + (X2/3 - X3/3)*(r2 - 1),$
 $(X2*(r1 - 1))/3 - (X1X2*(r1 - 1))/3, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0, \quad 0,$
 $0, \quad 0, \quad 0, \quad -1, \quad 0, \quad 0, \quad 0, \quad 0]$

$B =$

Columns 1 through 13

0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0

Columns 14 through 26

-1	0	0	0	0	0	0	0	0	0	0	0	0
0	-1	0	0	0	0	0	0	0	0	0	0	0
0	0	-1	0	0	0	0	0	0	0	0	0	0
0	0	0	-1	0	0	0	0	0	0	0	0	0
0	0	0	0	-1	0	0	0	0	0	0	0	0
0	0	0	0	0	-1	0	0	0	0	0	0	0
0	0	0	0	0	0	-1	0	0	0	0	0	0
0	0	0	0	0	0	0	-1	0	0	0	0	0
0	0	0	0	0	0	0	0	-1	0	0	0	0
0	0	0	0	0	0	0	0	0	-1	0	0	0
0	0	0	0	0	0	0	0	0	0	-1	0	0
0	0	0	0	0	0	0	0	0	0	0	-1	0
0	0	0	0	0	0	0	0	0	0	0	0	-1
0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0

Columns 27 through 28

0	0
0	0
0	0
0	0
0	0

```

0      0
0      0
0      0
0      0
0      0
0      0
0      0
0      0
0      0
-1     0
0      -1

```

```
ans =
```

```
21
```

```
ans =
```

```
30      28
```

```
ans =
```

```

[(r2 - 1)/r2, ((r1 - 1)*(r2 - 1))/(r1*r2), -(X1H12 + 3*r1 + H12*r2 -
2*X1H12*r1 - X1H12*r2 - X2X3*r1 + H11*r1^2 + X1H12*r1^2 + X2X3*r1^2 - 3*r1^2
- 2*H12*r1*r2 + 2*X1H12*r1*r2 + X2X3*r1*r2 - X1X2X3*r1*r2 + H12*r1^2*r2 -
X1H12*r1^2*r2 - X2X3*r1^2*r2 + X1X2X3*r1^2*r2)/(L1*r1*r2*(r1 - 1)), -r1/
(r2*(r1 - 1)), -(r1 - 1)/r1, -(2*H11*r1 - X2X3 - 6*r1 - 2*X1H12 -
2*H12*r2 + 2*X1H12*r1 + 2*X1H12*r2 + 2*X2X3*r1 + X2X3*r2 - X1X2X3*r2 +
2*H12*r1*r2 - 2*X1H12*r1*r2 - 2*X2X3*r1*r2 + 2*X1X2X3*r1*r2 + 3)/(r1*r2*(r1 -
1)), (H12 - X1H12 - H12*r1 + X1H12*r1 + X2X3*r1 - X1X2X3*r1)/(r1*r2)]
[
0,
0,
-(X1X2H12
+ 3*r1 - X3*r1 - 2*X1X2H12*r1 + H11*r1^2 + X3*r1^2 + X1X2H12*r1^2 - 3*r1^2)/
(L1*(r1 - 1)^2), -r1^2/(r1 - 1)^2,
0,
-(2*H11*r1 - 5*r1 - 2*X1X2H12 +
X3*r1 + 2*X1X2H12*r1 + 2)/(r1 -
1)^2,
0]
[
0,
0,
0,
0,
0,
(X2
- X2*r2 - X1X2*r2 + 1)/(r2*(r1 -
1)),
-X1X2/r2]
[
1,
0,

```

$0,$ $0,$
 $0,$
 $0,$ $0]$
 $[$ $0,$ $((r1 - 1)^2(r2 - 1))/r1^2,$ $-(X1H12 + 3*r1$
 $+ H12*r2 - X2*r1 - 2*X1H12*r1 - X1H12*r2 + H11X3*r1^2 + X2*r1^2 + X1H12*r1^2$
 $- 3*r1^2 - 2*H12*r1*r2 + X2*r1*r2 + 2*X1H12*r1*r2 - X1X2*r1*r2 + H12*r1^2*r2$
 $- X2*r1^2*r2 - X1H12*r1^2*r2 + X1X2*r1^2*r2)/(L1*r1^2),$ $0, -$
 $(r2*(r1 - 1)^2)/r1^2,$ $-(2*H11X3*r1 - 2*X1H12 -$
 $5*r1 - 2*H12*r2 - X2 + X2*r1 + X2*r2 + 2*X1H12*r1 + 2*X1H12*r2 - X1X2*r2 +$
 $2*H12*r1*r2 - X2*r1*r2 - 2*X1H12*r1*r2 + X1X2*r1*r2 + 3)/r1^2, -(H12 - X1H12$
 $- 2*H12*r1 + 2*X1H12*r1 + H12*r1^2 - X1H12*r1^2)/r1^2]$
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Results

rank =

21

size =

30 28

$$\text{Dim} = 13 - (28 - 21) = 6$$

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