

...

0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00 24.00 24.00 24.00 40.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00

whose determinant is: 7.378697629483821E19

\*\*\*\*\*

A semisimple algebra has been found, expanding with the semigroup #14918

1 1 1 1 1 6  
1 2 2 2 2 6  
1 2 3 4 5 6  
1 2 4 5 3 6  
1 2 5 3 4 6  
6 6 6 6 6 1

The metric of the expanded algebra is:

-16.00 -16.00 -16.00 -16.00 -16.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
-16.00 -24.00 -24.00 -24.00 -24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
-16.00 -24.00 -48.00 -24.00 -24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
-16.00 -24.00 -24.00 -24.00 -48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
-16.00 -24.00 -24.00 -48.00 -24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 -16.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 16.00 16.00 16.00 16.00 16.00 16.00 16.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 16.00 24.00 24.00 24.00 24.00 24.00 24.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 16.00 24.00 48.00 24.00 24.00 24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 16.00 24.00 24.00 24.00 48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 16.00 24.00 24.00 48.00 24.00 24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00 16.00 16.00 16.00 16.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00 24.00 24.00 24.00 24.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00 24.00 48.00 24.00 24.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00 24.00 24.00 24.00 48.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00 24.00 24.00 48.00 24.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00

whose determinant is: -2.269295397517657E22

\*\*\*\*\*

A semisimple algebra has been found, expanding with the semigroup #14927

1 1 1 1 1 6  
1 2 2 2 5 6  
1 2 3 2 5 6  
1 2 2 4 5 6  
1 5 5 2 6  
6 6 6 6 6 1

The metric of the expanded algebra is:

-16.00 -16.00 -16.00 -16.00 -16.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
-16.00 -32.00 -32.00 -32.00 -16.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
-16.00 -32.00 -40.00 -32.00 -16.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
-16.00 -32.00 -32.00 -40.00 -16.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
-16.00 -16.00 -16.00 -16.00 -32.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 -16.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 16.00 16.00 16.00 16.00 16.00 16.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 16.00 32.00 32.00 32.00 16.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 16.00 32.00 40.00 32.00 16.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 16.00 32.00 32.00 40.00 16.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 16.00 16.00 16.00 16.00 32.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00 16.00 16.00 16.00 16.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00 32.00 32.00 32.00 16.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00 32.00 40.00 32.00 16.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00 32.00 32.00 40.00 16.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00 16.00 16.00 16.00 32.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 16.00

whose determinant is: 7.378697629483821E19

\*\*\*\*\*

A semisimple algebra has been found, expanding with the semigroup #14929

1 1 1 1 1 6

The metric of the expanded algebra is:

whose determinant is: 7.378697629483821E19

A semisimple algebra has been found, expanding with the semigroup #14931

The metric of the expanded algebra is:

whose determinant is: 4.722366482869645E21

A semisimple algebra has been found, expanding with the semigroup #14937

The metric of the expanded algebra is:

[illegible]





A semisimple algebra has been found, expanding with the semigroup #15205

The metric of the expanded algebra is:

whose determinant is: 7.378697629483821E19

A semisimple algebra has been found, expanding with the semigroup #15226

The metric of the expanded algebra is:

whose determinant is: 7.378697629483821E19

A semisimple algebra has been found, expanding with the semigroup #15230

The metric of the expanded algebra is:









6 6 6 6 1 5

The metric of the expanded algebra is:

[illegible]

whose determinant is: -2.269295397517657E22

A semisimple

A semisimple algebra has been found, expanding with the semigroup #15436

1 1 1 1 5 6

1 2 1 2 5 6

1 1 3 3 5 6

1 2 3 4 5 6

5 5 5 5 6 1

6 6 6 6 1 5

The metric of the expanded algebra is:

[illegible]

whose determinant is: -3.545774058621339E20

A semisimple

A semisimple algebra has been found, expanding with the semigroup #15443

1 1 1 1 5 6

1 2 2 2 5 6

1 2 3 2 5 6

1 2 2 4 5 6

5 5 5 5 6 1

6 6 6 6 1 5

The metric of the expanded algebra is:

[illegible]

-24.00	-24.00	-24.00	-24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-24.00	-32.00	-32.00	-32.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-24.00	-32.00	-48.00	-32.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
-24.00	-32.00	-32.00	-48.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	-24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	-24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	24.00	24.00	24.00	24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	24.00	32.00	32.00	32.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	24.00	32.00	48.00	32.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	24.00	32.00	32.00	48.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.00	24.00	24.00	24.00	24.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.00	32.00	32.00	32.00	32.00	0.00	0.00

0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00 32.00 48.00 32.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00 32.00 32.00 48.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00 0.00

whose determinant is: -2.269295397517657E22

\*\*\*\*\*

A semisimple algebra has been found, expanding with the semigroup #15452

1 1 1 1 5 6  
1 2 2 4 5 6  
1 2 3 4 5 6  
1 4 4 2 5 6  
5 5 5 5 6 1  
6 6 6 6 1 5

The metric of the expanded algebra is:

-24.00 -24.00 -24.00 -24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
-24.00 -40.00 -40.00 -24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
-24.00 -40.00 -48.00 -24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
-24.00 -24.00 -24.00 -40.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 -24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 24.00 24.00 24.00 24.00 24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 24.00 40.00 40.00 24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 24.00 40.00 48.00 24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 24.00 24.00 24.00 40.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00 24.00 24.00 24.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00 40.00 40.00 24.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00 40.00 48.00 24.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00 24.00 24.00 40.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00 0.00

whose determinant is: -2.269295397517657E22

\*\*\*\*\*

A semisimple algebra has been found, expanding with the semigroup #15454

1 1 1 1 5 6  
1 2 3 4 5 6  
1 3 4 2 5 6  
1 4 2 3 5 6  
5 5 5 5 6 1  
6 6 6 6 1 5

The metric of the expanded algebra is:

-24.00 -24.00 -24.00 -24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
-24.00 -48.00 -24.00 -24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
-24.00 -24.00 -24.00 -48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
-24.00 -24.00 -48.00 -24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 -24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 24.00 24.00 24.00 24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 24.00 48.00 24.00 24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 24.00 24.00 24.00 48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 24.00 24.00 48.00 24.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00 24.00 24.00 24.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00 48.00 24.00 24.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00 24.00 24.00 48.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 24.00 0.00

whose determinant is: 6.979147079584381E24

\*\*\*\*\*

A semisimple algebra has been found, expanding with the semigroup #15619

1 1 1 4 4 4

The metric of the expanded algebra is:

whose determinant is: 4.722366482869645E21

A semisimple algebra has been found, expanding with the semigroup #15696

The metric of the expanded algebra is:

whose determinant is: 4.722366482869645E21

A semisimple algebra has been found, expanding with the semigroup #15725

The metric of the expanded algebra is:

[illegible]





A semisimple algebra has been found, expanding with the semigroup #15781

The metric of the expanded algebra is:

whose determinant is: -3.022314549036573E23

A semisimple algebra has been found, expanding with the semigroup #15784

The metric of the expanded algebra is:

whose determinant is: 1.9342813113834067E25

A semisimple algebra has been found, expanding with the semigroup #15785

The metric of the expanded algebra is:

[illegible]



[illegible]

0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 40.00 0.00 0.00 0.00

whose determinant is: 5.49755813888E26

\*\*\*\*\*

A semisimple algebra has been found, expanding with the semigroup #15972

1 2 3 4 5 6

2 1 4 3 6 5

3 4 5 6 1 2

4 3 6 5 2 1

5 6 1 2 3 4

6 5 2 1 4 3

The metric of the expanded algebra is:

-48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 -48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 -48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 -48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 -48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 -48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 48.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 48.00 0.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 48.00 0.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 48.00 0.00 0.00 0.00 0.00  
0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 48.00 0.00 0.00 0.00

whose determinant is: 1.829541532030568E30

\*\*\*\*\*

There are 2143 commutative semigroups of order 6

And 201 expansions that give a semisimple algebra