We introduce the structure constants of sl2
We show the Killing-Cartan metric

 -8.00 0.00 0.00
 0.00 8.00 0.00
 0.00 0.00 8.00

and its determinant
-512.0

In what follows we expand sl2 with all the abelian semigroups of order 2
and identify the ones that leads to a semisimple algebra
****
A semisimple algebra has been found, expanding with the semigroup #2
1 1
1 2
The metric of the expanded algebra is:

 -8.00 -8.00 0.00 0.00 0.00 0.00
 -8.00 -16.00 0.00 0.00 0.00 0.00
 0.00 0.00 8.00 8.00 0.00 0.00
 0.00 0.00 8.00 16.00 0.00 0.00
 0.00 0.00 0.00 0.00 8.00 8.00
 0.00 0.00 0.00 0.00 8.00 16.00

whose determinant is: 262144.0
****
A semisimple algebra has been found, expanding with the semigroup #4
1 2
2 1
The metric of the expanded algebra is:

 -16.00 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 16.00 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 16.00 0.00
 0.00 0.00 0.00 0.00 0.00 16.00

whose determinant is: 1.6777216E7
****
There are 3 commutative semigroups of order 2
And 2 expansions that give a semisimple algebra