

```

from kanren import run, var, fact
from kanren.assoccomm import eq_assoccomm as eq
from kanren.assoccomm import commutative, associative
addition = 'add'
multiplication = 'mul'
fact(commutative, multiplication)
fact(commutative, addition)
fact(associative, multiplication)
fact(associative, addition)
x, y, z = var('a'), var('b'), var('c')
originalPattern = (multiplication, (addition, z, x), y)
ex1 = (multiplication, 9, (addition, 5, 1))
ex2 = (addition, 5, (multiplication, 8, 1))
ex3 = (multiplication, 59, (addition, 234, 34))
print(run(0, (x, y, z), eq(originalPattern, ex1)))
print(run(0, (x, y, z), eq(originalPattern, ex2)))
print(run(0, (x, y, z), eq(originalPattern, ex3)))

```

OUTPUT:

```
((1, 9, 5), (5, 9, 1), (1, 9, 5))
```

```
()
```

```
((34, 59, 234), (234, 59, 34), (34, 59, 234))
```