This is the output of the program II_findAllResonances_ord3.java, which gives the list of semigroups of order 3 with resonant decompositions. The number of semigroups with at least one resonance and the total number of different resonances is given at the end of the file.

```
The semigroup #1
1 1 1
1 1 1
1 1 1
has #2 resonances.
Resonance #1
S0: 1 3
S1: 1 2
Resonance #2
S0: 1 2
S1: 1 3
*********
The semigroup #2
1 1 1
1 1 1
1 1 2
has #1 resonances.
Resonance #1
S0: 1 2
S1: 1 3
The semigroup #3
1 1 1
1 1 1
1 1 3
has #1 resonances.
Resonance #1
S0: 1 3
S1: 1 2
********
The semigroup #6
1 1 1
1 1 2
1 2 3
has #1 resonances.
Resonance #1
s0: 1 3
S1: 1 2
The semigroup #12
1 1 1
1 2 3
1 3 2
has #1 resonances.
Resonance #1
S0: 1 2
S1: 1 3
The semigroup #15
1 1 3
1 1 3
```

3 3 1

```
has #1 resonances.
Resonance #1
S0: 1 2
S1: 3
*********
The semigroup #16
1 1 3
1 2 3
3 3 1
has #1 resonances.
Resonance #1
S0: 1 2
S1: 3
*********
The semigroup #17
1 2 2
2 1 1
2 1 1
has #1 resonances.
Resonance #1
S0: 1
S1: 2 3
********
```

There are 8 semigroups with at least one resonance and there are in total 9 different resonances.