Practical 1

```
#top element
P=Poset({0:{1,2},1:[3,4]})
P.has_top()
```

```
False
```

```

```

```
#top element
P=Poset({0:[1,2],1:[3],2:[3]})
P.has_top()
```

```
True
```

```
#bottom elements
P.has_bottom()
P.top()
P.bottom()
```

```
True

3

0
```

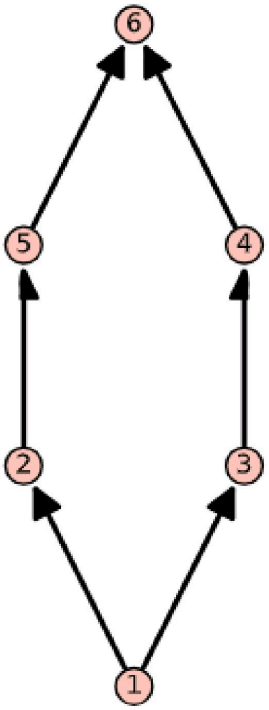
```
#top element
P=Poset({1:[2,3],2:[5],3:[4],5:[6],4:[6]})
P.has_top()
P.has_bottom()
P.top()
P.bottom()
```

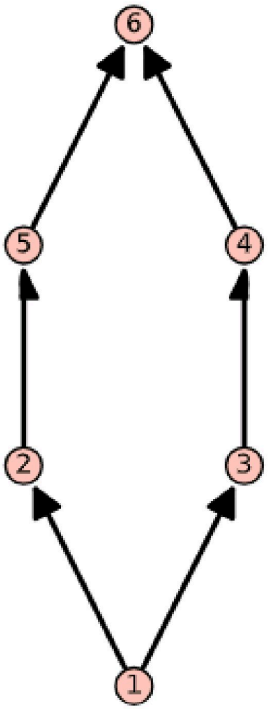
```
True

True

6

1
```

```
18 P
```

```
Finite poset containing 6 elements
```

```
19 P.plot()
```

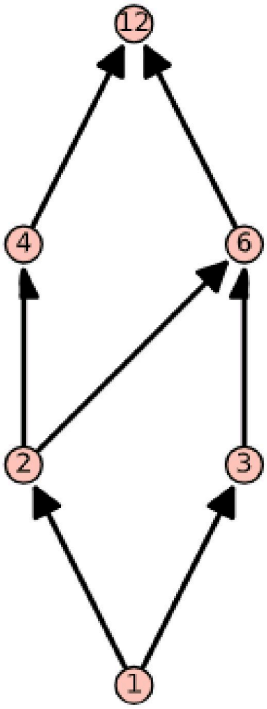


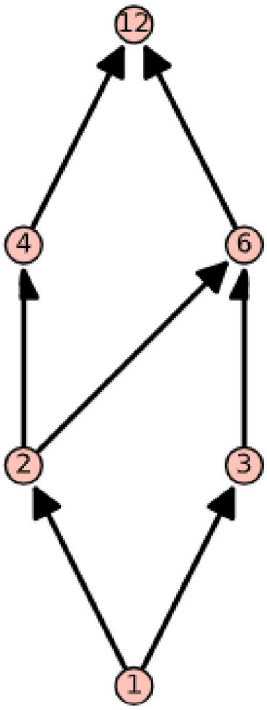



```
20
21 #draw Poset
22 R=Poset((divisors(12),attrcall("divides")))
23 R
```

```
24 R.plot()
```

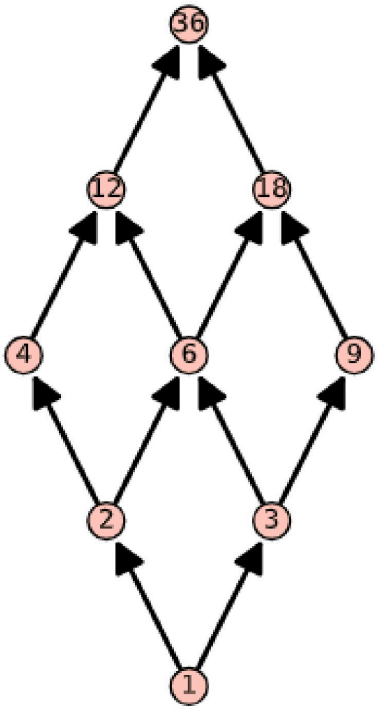
```
Finite poset containing 6 elements
```

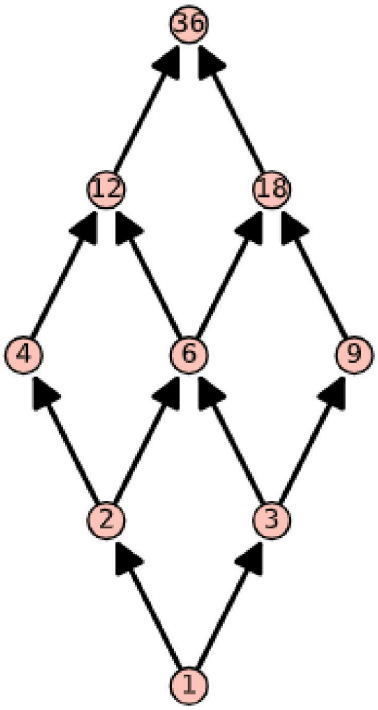





```
25 R=Poset((divisors(36),attrcall("divides")))
26 R
27 R.plot()
```

```
Finite poset containing 9 elements
```


36
12
18
4
6
9
2
3
1


36
12
18
4
6
9
2
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1