

```
Mobius Function
for i in range(1,20):
    print i,moebius(i)
```

```
1 1
2 -1
3 -1
4 0
5 -1
6 1
7 -1
8 0
9 0
10 1
11 -1
12 0
13 -1
14 1
15 1
16 0
17 -1
18 0
19 -1
```

```
# number of k-ary period n sequences
```

```
k=3
```

```
for n in range(1,20):
    print n, sum( k^d * moebius(n/d) for d in divisors(n) )
```

```
1 3
2 6
3 24
4 72
5 240
6 696
7 2184
8 6480
9 19656
10 58800
11 177144
12 530640
13 1594320
14 4780776
15 14348640
16 43040160
17 129140160
18 387400104
19 1162261464
```