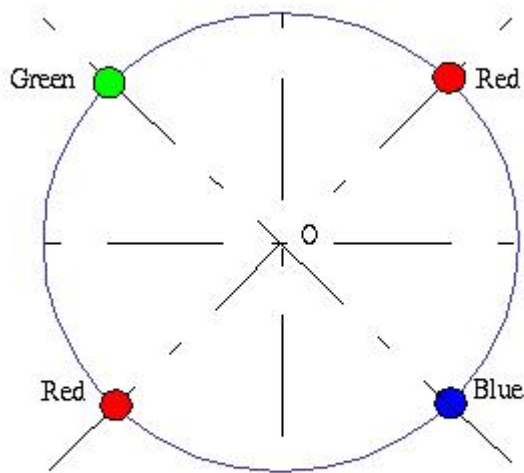
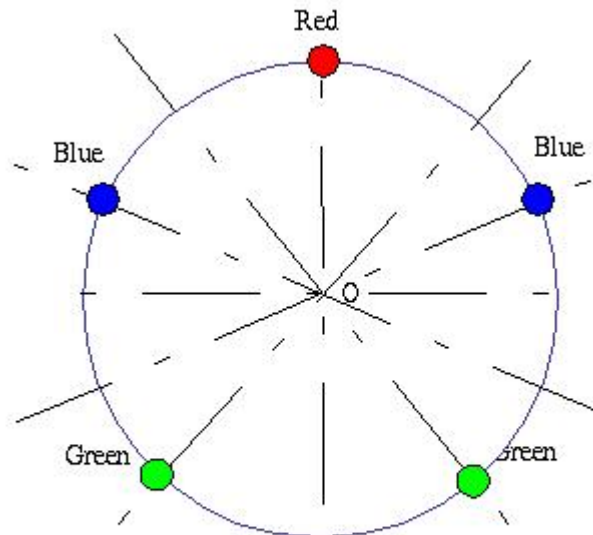


## 2708 Necklace of Beads

Beads of red, blue or green colors are connected together into a circular necklace of  $n$  beads ( $n < 24$ ). If the repetitions that are produced by rotation around the center of the circular necklace or reflection to the axis of symmetry are all neglected, how many different forms of the necklace are there?



The form with  $n=4$



The form with  $n=5$

### Input

The input contains the input data separated by commas and with '-1' at the end of the file.

### Output

Number of different forms.

The output should contain several output data separated by commas.

### Sample Input

4,5,-1

### Sample Output

21,39