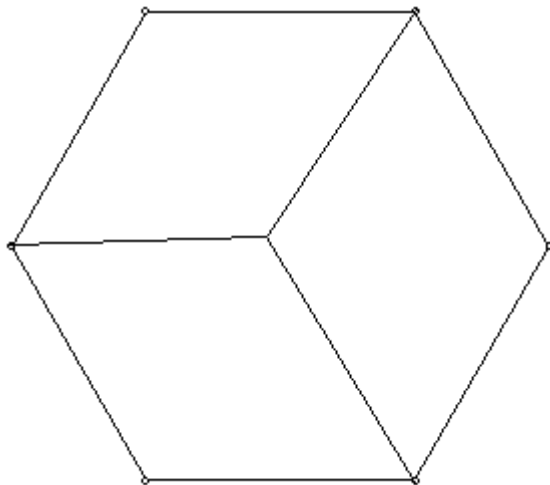


Given an integer  $n$ , determine whether it is possible to dissect a regular hexagon into  $n$  parallelograms of equal area. An example of a hexagon dissected into 3 parallelograms is given below.



### Input

There is at most 800 inputs. Each input is  $n$  ( $n < 1000001$ )

### Output

For each input, output the answer on a single line. Output '1' if it is possible to dissect a regular hexagon into  $n$  parallelograms, otherwise output '0'.

### Sample Input

```
2
147
```

### Sample Output

```
0
1
```