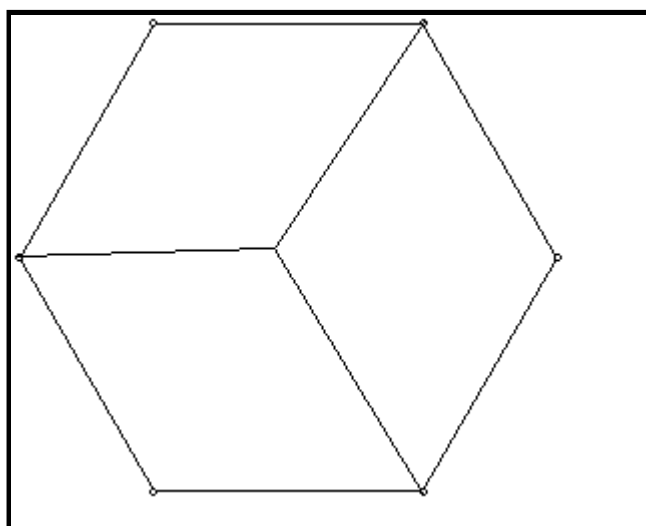


D. Dissecting a Hexagon

Problem

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



The Input

There is at most 800 inputs. Each input is n ($n < 1000001$) on a single line.

The 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
```

Problem setter: Josh Bao