



## 7: Square Meters of Beer

**Level:** Average

**Time limit:** 1 second

Together with a few other **via** members, you've decided to pay a visit to our brother-association NSA's drinks. You would like to figure out how many meters of beer  $M$  ( $2 \leq M \leq 10.000$ ) you should order in advance. However, recently a few strange rules have been enacted at the drinks:

1. Beer sold at the NSA drinks may only be bought in *meters*.
2. The number of beers a meter contains varies per week. The Beer-Amount-Per-Cupholder (read: per meter)  $B$  is announced in advance (your input).
3. If someone purchases an amount of beers that is divisible by the number of present NSA-members, the drinks *must* be divided amongst them as a sign of respect.

It's also useful to know that at the drinks of this mathematicians' association, there is always a square number of NSA-members present. How many there are isn't known beforehand, and this number can change throughout the night, but it's always a square number  $N$  ( $N > 1$ ).

Naturally, you're used to consuming the beers you purchase, so you're interested in a number of meters that you can purchase so that you don't risk having to give any of them away.

### Input

The only input line contains an integer  $B$ , the current week's number of beers per meter.

### Output

Your output must consist of a single line containing an integer  $M$  ( $2 \leq M \leq B$ ), so that  $M * B$  does not divide any allowed  $N$ . If multiple solutions are possible, output any of them.

**Sample input 1**

5

**Sample input 2**

30

**Sample output 1**

2

**Sample output 2**

7