Ann and Jimmy

Jimmy puts Ann's birthday present in a cuboid box. The dimensions of its edges are positive integers and the sum of its $length$, $width$, and $height$ is N.

What is the *maximum volume* Ann's present box can have?

$$length + width + height = N$$

Input Format

A single integer, N (the sum of the box's $length$, $width$, and $height$).

Constraint

$3 \leq N \leq 10^3$

Output Format

Print the *maximum possible volume* of the box.

Sample Input 0

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4
```

Sample Output 0

```
2
```

Sample Input 1

```
8
```

Sample Output 1

```
18
```

Explanation

Sample 0

Here, our only possible dimensions are some combination of 1, 1, and 2. $Volume = 1 \times 1 \times 2 = 2$, so we print 2.

Sample 1

Here are all possible edge dimensions:
$[1, 1, 6]$, $Volume = 6$.
$[1, 2, 5]$, $Volume = 10$.
$[1, 3, 4]$, $Volume = 12$.
$[2, 2, 4]$, $Volume = 16$.
$[2, 3, 3]$, $Volume = 18$.
We print the *maximum volume*, which is 18.