TLE '17 Contest 4 P1 - Riding the Curve

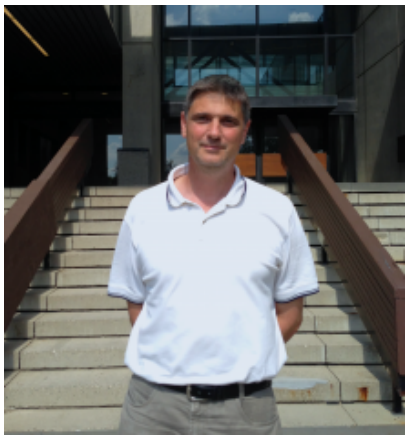
Time limit: 2.0s **Memory limit:** 256M

You have just recently written a mathematics exam. Your professor, Prof. Snew, is very nice and likes to adjust the marks so that his students' grades are higher.

The exam is initially out of M marks. Prof. Snew does the following to calculate a student's new mark:

> Suppose the raw mark is X. Then, add K marks to the raw mark, and make the exam out of N marks. That is, the final mark is $\frac{X+K}{N}$.

You now wonder to yourself, what is the minimum raw exam mark required to pass (at least 59.5%) after adjustment?



A beauty in mathematics.

Input Specification

The first line of input will contain three integers, M ($1 \leq M \leq 1\,000$), K ($-1\,000 \leq K \leq 1\,000$), and N ($1 \leq N \leq 1\,000$).

Output Specification

Output a single integer between 0 and M, the minimum raw exam mark required to pass. If it is impossible to pass, output `have mercy snew` instead.

Sample Input

```
50 32 80
```

Sample Output

```
16
```