

# Mock CCC '20 Contest 1 J2 - A Simplex Problem

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**Time limit:** 1.0s    **Memory limit:** 1G

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**koosaga** has been training hard for programming contests! One day, he decides to study linear programming, which invariably gets him to learn about the simplex algorithm.

Unrelated to the simplex algorithm, **koosaga** has discovered that there are two things which spark joy in his life - cacti and matroids. If **koosaga** has  $C$  cacti and  $M$  matroids, then his joy is  $CU_c + MU_m$ .

**koosaga** is a busy person though, so  $C + M$  cannot be too large. Fortunately, **koosaga** is a resourceful individual and will be able to obtain arbitrarily many cacti and matroids subject to this constraint.

**koosaga** wishes to know the maximum joy that can be sparked.

## Constraints

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$$K, U_c, U_m \leq 100$$

## Subtasks

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In tests worth 5 marks,  $K = 1$ .

In tests worth another 5 marks,  $U_c$  and  $U_m$  are both equal to 1.

## Input Specification

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The first line contains a single positive integer,  $U_c$ , the amount of joy a single cactus sparks.

The second line contains a single positive integer,  $U_m$ , the amount of joy a single matroid sparks.

The third line contains a single positive integer,  $K$ . The total number of cacti and matroids that **koosaga** can own may not exceed  $K$ .

## Output Specification

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Output, on a single line, the maximum amount of joy that can be sparked.

## Sample Input 1

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10
10
1
```

## Sample Output 1

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10

## Sample Input 2

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1  
1  
10

## Sample Output 2

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10