7/25/22, 3:31 PM USACO

# **USA Computing Olympiad**

OVERVIEW

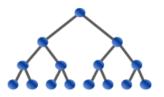
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# USACO 2016 FEBRUARY CONTEST, BRONZE PROBLEM 1. MILK PAILS

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Contest has ended.

## Log in to allow submissions in analysis mode

English (en)

Farmer John has received an order for exactly M units of milk  $(1 \le M \le 1,000)$  that he needs to fill right away. Unfortunately, his fancy milking machine has just become broken, and all he has are three milk pails of integer sizes X,Y, and M (  $1 \le X < Y < M$ ). All three pails are initially empty. Using these three pails, he can perform any number of the following two types of operations:

- He can fill the smallest pail (of size X) completely to the top with X units of milk and pour it into the size-M pail, as long as this will not cause the size-M pail to overflow.
- He can fill the medium-sized pail (of size Y) completely to the top with Y units of milk and pour it into the size-M pail, as long as this will not cause the size-M pail to overflow.

Although FJ realizes he may not be able to completely fill the size-M pail, please help him determine the maximum amount of milk he can possibly add to this pail.

### INPUT FORMAT (file pails.in):

The first, and only line of input, contains X, Y, and M, separated by spaces.

#### **OUTPUT FORMAT (file pails.out):**

Output the maximum amount of milk FJ can possibly add to the size-M pail.

#### **SAMPLE INPUT:**

17 25 77

#### SAMPLE OUTPUT:

76

In this example, FJ fills the pail of size 17 three times and the pail of size 25 once, accumulating a total of 76 units of milk.

Problem credits: Brian Dean

Contest has ended. No further submissions allowed.