Programming Basics Exam

Problem 4. Own Business

John wants to have his own business, so he decides to open a computer hall. He rents a hall and buys **N** computers. He begins transferring the computers **one at a time** to the rented room.

Write a **program** that **calculates the free space in the room after John moves the computers**.

Note: One computer is of exact size: 1m. x 1m. x 1m.

Input

The user reads the following data into separate lines:

- **Width of free space - integer in range [1...1000];**
- **Length of free space - an integer in the range [1...1000];**
- **Height of free space - an integer in the range [1...1000];**
- On the following lines **(until the "Done" command is received)** - **number of computers that are transferred to the hall - integer numbers in the range [1...10000];**

The program must end reading data at command "Done" or if there is no free space left.

Output

Print **one** of the following lines on the console:

- If you reach the **"Done"** command and there is still **free space**:

"{free space} Cubic meters left."

- If there is no more free space before the **"Done"** command is received:

"No more free space! You need {space needed} Cubic meters more."

Sample Input and Output

Input	Output	Constrains
10, 10, 2, [20, 20, 20, 20, 122]	No more free space! You need 2 Cubic meters more.	10 * 10 * 2 = 200 cubic meters. 20 + 20 + 20 + 20 + 122 = 202 cubic meters. 200 - 202 = 2 needed cubic meters.
10 1 2 4 6 Done	10 Cubic meters left.	10 * 1 * 2 = 20 cubic meters. 4 + 6 = 10 cubic meters. 20 - 10 = 10 cubic meters.