Problem A
Packaging Packages
Time Limit: *1 Second*

Problem Description

An online distribution company, Amazing, has many different packages which need to be shipped in boxes and wrapped with tape. Every box has a width (`w`), height (`h`), and length (`l`) — all of which will be specified in *inches*. The total amount of cardboard required to create the box is equal to the *surface area* of the box **plus two** "tabs" of area 1 inch times the size of the smallest dimension.

There are a total of six strips of tape holding the box together. Two of the strips run along the longest dimension of the box and have a one-inch overhang on either side. Four of the strips run along the second-longest dimension of the box and also have a one-inch overhang on either side.

Amazing wants to determine the total cost of packaging a list of packages given the price *per square foot* for cardboard, the price *per yard* for tape, and a list of package dimensions

Input File Format

Input consists of *at least* four lines. The first line will contain a floating-point number representing the cost *per square foot* for cardboard. The second line will contain a floating-point number representing the cost *per yard* for tape. The third line will contain a single integer (N) representing the number of packages that follow. The remaining N lines will contain three space-delimited floating-point numbers representing the width, height, and length of the packages — all in *inches*.

Output Format

Output the total cost of packaging the list of packages given the costs specified from the first two lines of input. This should be rounded up to the nearest dollar.

Sample Input

```
0.20
0.12
1
8.0 16.0 24.0
```

Output for the Sample Input

```
3
```