Captain and Treasure Hunt

locked

by bachkarakash

Problem Submissions Leaderboard Discussions

Captain Jack Sparrow is lost on an isolated island amid the pacific ocean. Captain meets a quirky, smart merchant, who is selling ships and firearms. As Jack is on a quest to find some of the finest ancient treasure, he wants to make sure that he is well prepared for anything which comes between him and the treasure.

Captain and his men strategically decide to buy **S** no. of ships and **F** no. of firearms in order for things to work according to plan.

```
1.)The cost of a " ship" is 'X' units.
2.)The cost of a " firearm" is 'Y' units.
3.)The cost of converting a "ship" into "firearm" or vice versa is 'Z' units.
```

Captain has a very low budget though. So he wants to buy all the required things in the minimum possible amount. Help Captain find the minimum amount . Remember captain is "treasure-hungry".

Input Format

The first line will contain an integer **T** which will be the number of test cases.

There will be **T** pairs of lines. The first line of each test case will contain the values of integers **S** and **F**.

Another line of each test case will contain the values of integers **X**, **Y**, and **Z**.

Constraints

1<= *T* <=10

0<= *X*, *Y*, *Z*, *S*, *F* <=10^9

Output Format

T lines, each containing an integer: the minimum amount of units Captain needs to spend.

Sample Input 0

```
5
10 10
1 1 1
5 9
2 3 4
3 6
9 1 1
```

```
7 7
4 2 1
3 3
1 9 2
```

Sample Output 0

```
20
37
12
35
12
```

Explanation 0

Sample Case #01: There is no benefit to converting the firearms into ships or the ships into firearms, so Jack will have to buy each gift for 1 unit. So cost of buying all gifts will be: 10*1+10*1=20 .

Sample Case #03: We will buy the firearms at their original price, 1 unit. For the ships, we will first buy firearms and then get ships instead so that their cost will be reduced to 1+1=2. So cost of buying will be:3*2+6*1=12 .

Submissions: 17
Max Score: 50
Difficulty: Medium

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Current Buffer (saved locally, editable) C++

```
#include <cmath>
#include <cstdio>
#include <vector>
#include <iostream>
#include <algorithm>
using namespace std;


int main() {
    /* Enter your code here. Read input from STDIN. Print output to STDOUT */
    return 0;
}
```

Line: 1 Col: 1

Upload Code as File Test against custom input Run Code Submit Code