

[All Contests](#) > [MACATHON 2022](#) > [Nike Sneakers](#)

Nike Sneakers

Problem

Submissions

Leaderboard

Discussions

Nike plans to mass produce their newly release sneaker due to popular demand. They plan to produce the shoes for n days from the start of next month. They start the production with an initial rate of producing about k sneakers per day and plan to increase the production by x shoes after every interval of y days. For example, after y days the rate is $k+x$ dollars per day, and after $2y$ days the rate is $k+2x$ shoes per day, and so on. Output the amount of shoes they will be able to manufacture in the given period.

Input Format

The first line contains an integer T , the number of test cases. Then the test cases follow. Each test case contains a single line of input, four integers n, y, k, x .

Constraints

$$1 \leq T \leq 10^5$$

$$1 \leq y \leq n \leq 10^6$$

$$1 \leq x, k \leq 10^6$$

Output Format

For each test case, output in a single line the answer to the problem.

Sample Input 0

```
3
2 1 1 1
3 2 1 1
5 2 1 2
```

Sample Output 0

```
3
4
13
```




Contest ends in 7 hours

Submissions: 8

Max Score: 100

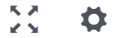
Difficulty: Easy

Rate This Challenge:

☆☆☆☆☆

[More](#)

C++14



```
1 #include <cmath>
2 #include <cstdio>
3 #include <vector>
4 #include <iostream>
5 #include <algorithm>
6 using namespace std;
7
8
9 int main() {
10     /* Enter your code here. Read input from STDIN. Print output to STDOUT */
11     return 0;
12 }
13
```

Line: 1 Col: 1

[Upload Code as File](#) ☐ [Test against custom input](#)[Run Code](#)[Submit Code](#)[Interview Prep](#) | [Blog](#) | [Scoring](#) | [Environment](#) | [FAQ](#) | [About Us](#) | [Support](#) | [Careers](#) | [Terms Of Service](#) | [Privacy Policy](#) |