



Java Loops II ☆

22 more points to get your next star!

Rank: 130639 | Points: 128/150



Problem

Submissions

Leaderboard

Discussions

Editorial

We use the integers a , b , and n to create the following series:

$$(a + 2^0 \cdot b), (a + 2^0 \cdot b + 2^1 \cdot b), \dots, (a + 2^0 \cdot b + 2^1 \cdot b + \dots + 2^{n-1} \cdot b)$$

You are given q queries in the form of a , b , and n . For each query, print the series corresponding to the given a , b , and n values as a single line of n space-separated integers.

Input Format

The first line contains an integer, q , denoting the number of queries.

Each line i of the q subsequent lines contains three space-separated integers describing the respective a_i , b_i , and n_i values for that query.

Constraints

- $0 \leq q \leq 500$
- $0 \leq a, b \leq 50$
- $1 \leq n \leq 15$

Output Format

For each query, print the corresponding series on a new line. Each series must be printed in order as a single line of n space-separated integers.

Sample Input

```
2
0 2 10
5 3 5
```

Sample Output

```
2 6 14 30 62 126 254 510 1022 2046
8 14 26 50 98
```

Explanation

We have two queries:

- We use $a = 0$, $b = 2$, and $n = 10$ to produce some series s_0, s_1, \dots, s_{n-1} :

- $s_0 = 0 + 1 \cdot 2 = 2$
- $s_1 = 0 + 1 \cdot 2 + 2 \cdot 2 = 6$
- $s_2 = 0 + 1 \cdot 2 + 2 \cdot 2 + 4 \cdot 2 = 14$

... and so on.

Once we hit $n = 10$, we print the first ten terms as a single line of space-separated integers.

- We use $a = 5$, $b = 3$, and $n = 5$ to produce some series s_0, s_1, \dots, s_{n-1} :

- $s_0 = 5 + 1 \cdot 3 = 8$
- $s_1 = 5 + 1 \cdot 3 + 2 \cdot 3 = 14$
- $s_2 = 5 + 1 \cdot 3 + 2 \cdot 3 + 4 \cdot 3 = 26$
- $s_3 = 5 + 1 \cdot 3 + 2 \cdot 3 + 4 \cdot 3 + 8 \cdot 3 = 50$
- $s_4 = 5 + 1 \cdot 3 + 2 \cdot 3 + 4 \cdot 3 + 8 \cdot 3 + 16 \cdot 3 = 98$

We then print each element of our series as a single line of space-separated values.

Author

Shafaet

Difficulty

Easy

Max Score

10

Submitted By

235447

NEED HELP?

View discussions

View editorial

View top submissions

RATE THIS CHALLENGE



MORE DETAILS

Download problem statement

Download sample test cases

Suggest Edits



Welcome to the dark side!



We've introduced a new Dark Mode for a better coding experience.

Try Dark Mode

Change Theme

Java 7



```
1 import java.util.*;
2 import java.io.*;
3
4 class Solution{
5     public static void main(String []argh){
6         Scanner in = new Scanner(System.in);
7         int t=in.nextInt();
8         for(int i=0;i<t;i++){
9             int a = in.nextInt();
10            int b = in.nextInt();
11            int n = in.nextInt();
12        }
13        in.close();
14    }
15 }
16
17
```

Line: 1 Col: 1

Upload Code as File ☐ Test against custom input

Run Code

Submit Code

[Contest Calendar](#) | [Blog](#) | [Scoring](#) | [Environment](#) | [FAQ](#) | [About Us](#) | [Support](#) | [Careers](#) | [Terms Of Service](#) | [Privacy Policy](#) | [Request a Feature](#)