Java Loops II ★



X

Your Java Loops II submission got 10.00 points.

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We use the integers $oldsymbol{a}$, $oldsymbol{b}$, and $oldsymbol{n}$ to create the following series:

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

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

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

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 ${m n}$ 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:

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

$$s_0 = 0 + 1 \cdot 2 = 2$$

$$s_1 = 0 + 1 \cdot 2 + 2 \cdot 2 = 6$$

$$\circ \ \ s_2 = 0 + 1 \cdot 2 + 2 \cdot 2 + 4 \cdot 2 = 14$$

... and so on.

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

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



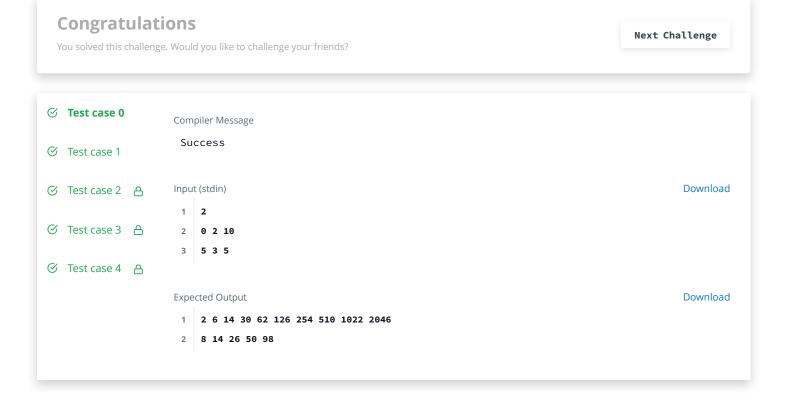
```
 s_1 = 5 + 1 \cdot 3 + 2 \cdot 3 = 14 
 s_2 = 5 + 1 \cdot 3 + 2 \cdot 3 + 4 \cdot 3 = 26 
 s_3 = 5 + 1 \cdot 3 + 2 \cdot 3 + 4 \cdot 3 + 8 \cdot 3 = 50 
 s_4 = 5 + 1 \cdot 3 + 2 \cdot 3 + 4 \cdot 3 + 8 \cdot 3 + 16 \cdot 3 = 98 
We then print each element of our series as a single line of space-separated values.
```

```
K ZI
                                                     Change Theme Language Java 7
                                                                                                       0
     import java.util.*;
2
     import java.io.*;
 3
     class Solution{
 4
 5
         public static void main(String []argh){
             Scanner in = new Scanner(System.in);
 6
 7
             int sum = 0;
 8
             int t=in.nextInt();
9
             for(int i=0;i<t;i++){</pre>
                 int a = in.nextInt();
10
                 int b = in.nextInt();
11
                 int n = in.nextInt();
12
13
                 if( (n>=1&&n<=15) && (a>=0&&a<=50) && (b>=0&&b<=50) ){
14
                int j=0;
                while(j<n){
15
                     int s = (int)Math.pow(2,j)*b;
16
17
                      sum = sum + s;
18
                      int ss = sum+a;
                      System.out.print(ss + " ");
19
20
                      j++;
21
                 }
22
              sum = 0;
23
              int ss = 0;
24
                 }
25
                  System.out.println("");
26
27
             in.close();
28
         }
29
     }
30
                                                                                                           Line: 30 Col: 1
                                                                                                           Submit Code
                                                                                             Run Code
Test against custom input
```

You have earned 10.00 points!

You are now 5 points away from the 2nd star for your java badge. **80%** 45/50





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