We use the integers a, b, and n to create the following series: (a+20

.b), (a+20

.b+21

.b),...,(a+20

.b+21

.b+.....+2n-1

.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 ai, bi, and ni values for that query.

Constraints

• 0 <= q <= 500

• 0 <= a,b <= 50

• 1 <= n <= 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:

1. We use a=0, b=2, and n=10 to produce some series s0,s1,.... sn-1:

o s0 = 0 + 1.2 = 2

o s1 = 0 + 1.2+2.2 = 6

o s2 = 0 + 1.2+2.2+4.2 = 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 s0,s1,....sn-1:

o s0 = 5+1.3 = 8

o s1 = 5+1.3+2.3 = 14

o s2 = 5+1.3+2.3+4.3 = 26

o s3 = 5+1.3+2.3+4.3+8.3 = 50

o s4 = 5+1.3+2.3+4.3+8.3+16.3 = 98

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

Coding:

```
import java.util.Scanner;
class solution {
   public static void main(String[] args){
      Scanner s = new Scanner(System.in);
      int q=s.nextInt();
      for(int i=0;i<q;i++){
         int a = s.nextInt();
         int b = s.nextInt();
         int n = s.nextInt();
         int sum = a;
         for(int j=0;j<n;j++){
            sum += Math.pow(2, j) * b;
            System.out.print(sum + " ");
         }
         System.out.println();
      }
      s.close();
   }
}
```

Output:

```
E:\javacode.java\8-10-2024>javac solution.java

E:\javacode.java\8-10-2024>java solution
2
0 2 10
2 6 14 30 62 126 254 510 1022 2046
```