

Many real-world applications can be reduced to solving simultaneous equations. We can find a solution by iterating and checking all the possible combinations of input. Write a program to find a solution satisfying the following simultaneous equations:

$$\begin{aligned}x + 2y + 3z &= U \\xyz &= V \\x^3 + y^2 + z &= W\end{aligned}$$

Input

The input contains several cases and ends with EOF. Each case contains three integer values, which in turn represent U , V and W .

Output

For each case, output the three values x , y , and z .

Sample Input

42 100 43
30 28 24

Sample Output

2 5 10
1 4 7