22/04/2019 Modulo – Kattis, Kattis

Modulo

Problem ID: modulo
CPU Time limit: 1 second
Memory limit: 1024 MB

Difficulty: 1.6

Source: Croatian Open Competition in Informati 2006/2007, contest #1 **License:** For educational

Given two integers A and B, A modulo B is the remainder when dividing A by B. For example, the numbers 7, 14, 27 and 38 become 1, 2, 0 and 2, modulo 3. Write a program that accepts 10 numbers as input and outputs the number of distinct numbers in the input, if the numbers are considered modulo 42.

Input

The input will contain 10 non-negative integers, each smaller than 1000, one per line.

Output

Output the number of distinct values when considered modulo 42 on a single line.

Explanation of Sample Inputs

In sample input 1, the numbers modulo 42 are 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10.

In sample input 2, all numbers modulo 42 are 0.

In sample input 3, the numbers modulo 42 are 39, 40, 41, 0, 1, 2, 40, 41, 0 and 1. There are 6 distinct numbers.

Sample Input 1

Sample Output 1

1	10
2	
3	
4	
5	
6	
7	
8	
9	
10	

Sample Input 2

Sample Output 2

84 252 420 840 126 42 84 420 126	42	1
	84	
	252	
	420	
	840	
	126	
84		
420	84	
420	420	
126	126	

Sample Input 3

Sample Output 3

