COCI '06 Contest 1 #1 Modulo

Time limit: 1.0s **Memory limit:** 32M

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 Specification

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

Output Specification

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

Sample Input 1

```
1
2
3
4
5
6
7
8
9
10
```

Sample Output 1

```
10
```

Explanation for Sample Output 1

The numbers modulo 42 are 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10.

Sample Input 2

```
42
84
252
420
840
126
42
84
420
126
```

Sample Output 2

```
1
```

Explanation for Sample Output 2

All numbers modulo 42 are 0.

Sample Input 3

```
39
40
41
42
43
44
82
83
84
85
```

Sample Output 3

```
6
```

Explanation for Sample Output 3

The numbers modulo 42 are 39, 40, 41, 0, 1, 2, 40, 41, 0 and 1. There are 6 distinct numbers.