Problem D - Count the factors

Time Limit: 1 second

The Problem

Write a program, that computes the number of different prime factors in a positive integer.

The Input

The input tests will consist of a series of positive integers. Each number is on a line on its own. The maximum value is 1000000. The end of the input is reached when the number 0 is met. The number 0 shall not be considered as part of the test set.

Output

The program shall output each result on a line by its own, following the format given in the sample output.

Sample input

```
289384
930887
692778
636916
747794
238336
885387
760493
516650
641422
0
```

Sample output

```
289384 : 3
930887 : 2
692778 : 5
636916 : 4
747794 : 3
238336 : 3
885387 : 2
760493 : 2
516650 : 3
641422 : 3
```