**Prime Test**

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| **Time Limit:** 6000MS |  | **Memory Limit:** 65536K |
|  |  |  |
| **Case Time Limit:** 4000MS | | |

**Description**

Given a big integer number, you are required to find out whether it's a prime number.

**Input**

The first line contains the number of test cases T (1 <= T <= 20 ), then the following T lines each contains an integer number N (2 <= N < 254).

**Output**

For each test case, if N is a prime number, output a line containing the word "Prime", otherwise, output a line containing the smallest prime factor of N.

**Sample Input**

2

5

10

**Sample Output**

Prime

2

**Source**

[POJ Monthly](http://poj.org/searchproblem?field=source&key=POJ+Monthly)