

# Least prime divisor

Given odd integer  $n > 2$  compute its least prime divisor.

## Input

Each line of input contains one random odd integer number  $2 < n < 10^8$  (100 000 000). Input terminates with 0 (zero). There will be two input files.

## Output

For each  $n$  print its least prime divisor on new line.

## Example

### Input:

3  
9  
11  
15  
49  
0

### Output:

3  
3  
11  
3  
7