Is Prime

The goal of this exercise is to create a program which reads positive integers from `std::cin` and outputs for each of them whether it is prime or not.

The following restrictions/assumptions apply: - The memory footprint of your program may not depend on the input (space complexity O(1)) - No spurious data will be present in the input set - The input file contains only a single line, holding all values

The output generated for each input must have the following form:

input is a prime: [True, False]

So for the input

```
1 10 13
```

The output must be

```
1 is a prime: False
10 is a prime: False
13 is a prime: True
```

Full call example given that the executable is called main

```
echo "1 10 13" | ./main
```

Expected output as before.

Challenge

Implementations faster than our (suboptimal but not bad) reference implementation get extra points.

Bonus

Another bonus is given to an implementation if it is at least 10% faster than any of the other implementations (including our reference implem)