**Prime numbers**

**Description**

Write a program that finds all prime numbers in the range [1 ... N]. Use the [Sieve of Eratosthenes](http://en.wikipedia.org/wiki/Sieve_of_Eratosthenes) algorithm. The program should print the biggest prime number which is <= N.

**Input**

* On the first line you will receive the number **N**

**Output**

* Print the biggest prime number which is <= N

**Constraints**

* 2 <= **N** <= 10 000 000
* Time limit: **0.3s**
* Memory limit: **64MB**

**Sample tests**

| **Input** | **Output** |
| --- | --- |
| 13 | 13 |
| 126 | 113 |
| 26 | 23 |