

Problem C. Minimum divisor of a number

A natural number $n > 1$ is given. Print its smallest divisor other than 1.

Form the solution in the form of the `MinDivisor(n)` function. The algorithm must be $O(n)$.

Indication. If the number n has no divisor not exceeding n , then the number n is prime and the answer will be the number n itself.

Input data

A natural number is entered.

Output

Print the answer to the problem.

Examples of
input data

4

output

2

input data

5

output

5

**Maximum divisor of a number
not equal to a number or
print it not exist**

```
int N;  
int maxDivisor;  
int status = 0; // Status has not encountered divisor
```

```
// N = 12  
// max divisor = 6  
std::cin >> N;  
for (int i = 2; i < N; i++) {  
    if (N % i == 0) {  
        maxDivisor = i;  
        status = 1;  
    }  
}  
if (status == 0) {  
    std::cout << " Does not exist " << std::endl;  
}  
else {  
    std::cout << " Max divisor is " << maxDivisor << std::endl;  
}
```

```
int N;  
// N = 9  
// N  
std::cin >> N;  
for (int i = 2; i <= N; i++) {  
    if (N % i == 0) {  
        std::cout << " The least divisor is " << i << std::endl;  
        break;  
    }  
}
```

12
6
17
not exist



detect prime or not prime number

```
for (int i = 2; i <= N; i++) {  
    if (N % i == 0) {  
        if (i == N) {  
            std::cout << " Prime " << std::endl;  
            break;  
        }  
        else if (i != N) {  
            std::cout << " Not Prime." << std::endl;  
            break;  
        }  
    }  
}
```