

Next & Previous Immediate Prime Difference

A number N is passed as the input. The program must print the difference between the next immediate prime number and the previous immediate prime number.

If the given number N itself is a prime number then print 0 (zero).

Input Format:

The first line will contain the value of the number N.

Boundary Conditions:

$2 \leq N \leq 9999999$

Output Format:

The difference between the next immediate prime number and the previous immediate prime number for N.

Example Input/Output 1:**Input:**

14

Output:

4

Explanation:

The next immediate prime number is 17.

The previous immediate prime number is 13.

Hence their difference = $17 - 13 = 4$ is printed as output.

Example Input/Output 2:**Input:**

23

Output:

0

Explanation:

23 itself is a prime number. Hence the output is 0.

Example Input/Output 3:**Input:**

2580

Output:

12

Explanation:

The next immediate prime number is 2591.

The previous immediate prime number is 2579.

Hence their difference 12 is printed as output.