

# Week 08 : Programming Assignment 4

Due on 2025-03-20, 23:59 IST

Write a Java program that reads an integer and determines if it is a prime number.  
A prime number is only divisible by 1 and itself.

Expected Input/Output:

Input: 7

Output: Prime

Private Test cases used for evaluation

Test Case 1

Input	Expected Output	Actual Output	Status
13	Prime	Prime	Passed

The due date for submitting this assignment has passed.  
1 out of 1 tests passed.  
You scored 100.0/100.

Assignment submitted on 2025-03-17, 23:23 IST

Your last recorded submission was :

```
1 import java.util.Scanner;
2
3 public class W08_P4 {
4     public static void main(String[] args) {
5         Scanner scanner = new Scanner(System.in);
6
7         int number = scanner.nextInt();
8
9         boolean isPrime = true;
10
11         if (number <= 1) {
12             isPrime = false;
13         } else {
14             for (int i = 2; i <= Math.sqrt(number); i++) {
15                 if (number % i == 0) {
16                     isPrime = false;
17                     break;
18                 }
19             }
20         }
21         if (isPrime) {
22             System.out.print("Prime");
23         } else {
24             System.out.print("Not Prime");
25         }
26     }
27
28     scanner.close();
29 }
30
31 }
```

Sample solutions (Provided by instructor)

```
1 import java.util.Scanner;
2
3 public class W08_P4 {
4     public static void main(String[] args) {
5         Scanner scanner = new Scanner(System.in);
6
7         int number = scanner.nextInt();
8
9         boolean isPrime = true;
10        if (number <= 1) {
11            isPrime = false;
12        } else {
13            for (int i = 2; i * i <= number; i++) {
14                if (number % i == 0) {
15                    isPrime = false;
16                    break;
17                }
18            }
19        }
20        System.out.println(isPrime ? "Prime" : "Not Prime");
21        scanner.close();
22    }
23 }
```