Experiment 2

Programs on Basic programming constructs like branching and looping

WAP to print the roots of quadratic equation.

```java
// a. WAP to print the roots of quadratic equation
import java.util.Scanner;
class Roots{
  public static void main(String args[]) {
    Scanner sc = new Scanner(System.in);
    System.out.println("Enter the coefficients of the quadratic equation");
    int a, b, c;
    a = sc.nextInt();
    b = sc.nextInt();
    c = sc.nextInt();
    int D = (b*b - 4*a*c);
    double rootD = Math.sqrt(D);
    boolean is0 = (D == 0);
    System.out.println(( is0 ? ("The root is " + -b / (2*a)) : ("The roots are: " + ((-b +
  }
}
```

WAP to check if entered number is a prime number.

```java
import java.util.Scanner;
class TestPrime{
    public static void main(String args[]) {
        Scanner sc = new Scanner(System.in);
        int num, i;
        System.out.println("Enter a number");
        num = sc.nextInt();
        for( i = 2; i <= num / 2; i++)
        {
            if(num % i == 0)
            {
                System.out.println("The Number is not prime");
                break;
            }
        }
        if(i == num / 2 + 1)
        {
            System.out.println("The number is prime");
        }
        sc.close();
    }
```

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Study of different operators in java

WAP to compare two numbers

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WAP to print truth table for java logical operators

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WAP to read the number & shift left & right by 3 bits

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