PROGRAM 3

a) Write a program to check prime number
b) Write a program for Arithmetic calculator using switch case menu

a) Write a program to check prime number

```
import java.util.Scanner;
public class Prime {
  public static void main(String[] args)
{
          int num ;
           boolean flag = false;
         Scanner s1=new Scanner(System.in);
          System.out.println(“Enter the Number”);
         num=s1.nextInt();
          for (int i = 2; i <= num / 2; i++)
         {
     // condition for nonprime number
          if (num % i == 0) {
          flag = true;
         break;
         }
    }
    if (flag)
      System.out.println(num + " is not a prime number.");
    else
      System.out.println(num + " is a prime number.");
  }
}
```

b)Write a program for Arithmetic calculator using switch case menu

```
import java.util.Scanner;
class Main {
  public static void main(String[] args) {
    char operator;
    Double number1, number2, result;
    // create an object of Scanner class
    Scanner s1 = new Scanner(System.in);
    // ask users to enter operator
    System.out.println("Choose an operator: +, -, *, or /");
    operator = s1.next().charAt(0);
    // ask users to enter numbers
    System.out.println("Enter first number");
    number1 = s1.nextDouble();
    System.out.println("Enter second number");
    number2 = s1.nextDouble();
    switch (operator) {
      // performs addition between numbers
      case '+':
        result = number1 + number2;
        System.out.println(number1 + " + " + number2 + " = " + result);
        break;
      // performs subtraction between numbers
      case '-':
        result = number1 - number2;
        System.out.println(number1 + " - " + number2 + " = " + result);
        break;
      // performs multiplication between numbers
      case '*':
        result = number1 * number2;
        System.out.println(number1 + " * " + number2 + " = " + result);
        break;
      // performs division between numbers
      case '/':
        result = number1 / number2;
        System.out.println(number1 + " / " + number2 + " = " + result);
        break;
          default:
        System.out.println("Invalid operator!");
        break;
    }
  }}
```