```
import java.util.Scanner;
public class PrimeNumberCheckerr {
public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        System.out.print("Enter a positive integer: ");
        int num = scanner.nextInt();

     if (num <= 1) {
     System.out.println(num + " is not a prime number");
       } else {
   boolean isPrime = true;
     for (int i = 2; i < num; i++) {
     if (num % i == 0) {
     isPrime = false;
break;
                }
}
       if (isPrime) {
System.out.println(num + " is a prime number");
       } else {
System.out.println(num + " is not a prime number")
}
}
}
}public class PowerCalculator1 {
public static void main(String[] args) {
Scanner input = new Scanner(System.in);

System.out.print("Enter the base number: ");
int base = input.nextInt();

System.out.print("Enter the exponent: ");
int exponent = scanner.nextInt();

int result = base;
for (int i = 1; i < exponent; i++) {
           result *= base;
}
System.out.println(base + " raised to the power of " + exponent + " is: " + result);
}
}import java.util.Scanner;

public class PowerTable1 {
```

```
public static void main(String[] args) {
Scanner input = new Scanner(System.in);

System.out.println("How many rows do you want in your table?");
int numRows = input.nextInt();

       // Loop through each row and get the values from the user
      for (int i = 0; i < numRows; i++) {
System.out.println("Enter the value for 'a' in row " + (i + 1) + ":");
 int a = scanner.nextInt();
System.out.println("Enter the value for 'b' in row " + (i + 1) + ":");
int b = scanner.nextInt();

                    // Calculate the po}
}import java.util.Scanner;

public class MyFactorial{
public static void main(String[] args){
Scanner input = new Scanner(System.in);

System.out.print("Enter a non-negative integer: ");
  int number = input.nextInt();
if (number < 0) {
  System.out.println("Factorial is not defined for negative numbers.");
} else {
           long factorial = 1;
  for (int i = 1; i <= number; i++) {
      factorial *= i;

 System.out.println("Factorial of " + number + " is: " + factorial);
}
}
}import java.util.Scanner;
public class FactorialLoop {
public static void main(String[] args) {
Scanner input = new Scanner(System.in);

System.out.print("Enter a non-negative integer: ");
int number = input.nextInt();

    if (number < 0) {
   System.out.println("Factorial is not defined for negative numbers.");
} else {
    long factorial = 1;
```

```
    for (int i = 1; i <= number; i++) {
    factorial *= i;

}

 System.out.println("Factorial of " + number + " is: " + factorial);

}

}
}ublic class AsteriskPatterns {
public static void main(String[] args) {
        // Pattern (a)
  for (int i = 1; i <= 5; i++) {
  for (int j = 1; j <= i; j++) {
    System.out.print("*");
}
     System.out.println(); // Move to the next line
}
        // Pattern (b)
   for (int i = 5; i >= 1; i--)
   for (int j = 1; j <= i; j++) {
     System.out.print("*");
}
     System.out.println();
}

        // Pattern (c)
  for (int i = 1; i <= 5; i++) {
          // Print spaces
  for (int k = 1; k <= 5 - i; k++) {
  System.out.print(" ");
}
           // Print asterisks
  for (int j = 1; j <= i; j++) {
  System.out.print("*");
}
  System.out.println();
}

        // Pattern (d)
  for (int i = 5; i >= 1; i--) {
           // Print spaces
  for (int k = 1; k <= 5 - i; k++) {
```

```
  System.out.print(" ");
}
          // Print asterisks
  for (int j = 1; j <= i; j++)
{
  System.out.print("*"); }

}
}
}public class SummOfFirst10 {
public static void main(String[] args) {
                // Initialize sum to 0
int sum = 0;
      // Loop through numbers 1 to 10
  for (int i = 1; i <= 10; i++) {
                 // Add each number to the sum
  sum += i;
       }
                // Print the calculated sum
System.out.println("The sum of the first 10 natural numbers is: " + sum);
}
}import java.util.Scanner;

public class MaxMinNumbers {

    public static void main(String[] args) {
Scanner input = new Scanner(System.in);
int max = Integer.MIN_VALUE; // Initialize max to the smallest possible integer
int min = Integer.MAX_VALUE; // Initialize min to the largest possible integer
int num = ();

          System.out.println("Enter numbers (enter -1 to stop):");
       do {
          num = scanner.nextInt();
          if (num == -1) {
          break; // Exit loop if user enters -1
}
          if (num > max) {
          max = num; // Update max if recent number is greater
          }
if (num < min) {
             min = num; // Update min if recent number is smaller
}
} while (true); // Loop continues until user enters -1
```

```
        System.out.println("Largest number: " + max);
        System.out.println("Smallest number: " + min);
}
}
```