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**Java Programs Assignment:**

**C# Program to Check Whether a Given Number is Even or Odd**

```
import java.util.*;

class OddEven {

    public static void main(String[] args) {

        int num;

        System.out.println("Enter number you want");

        Scanner sc = new Scanner(System.in);

        num = sc.nextInt();

        if(num%2==0){

            System.out.println("Number you entered is Even");

        }

        else{

            System.out.println("Number you entered is odd");

        }

    }

}
```

### **C# Program to Print Odd Numbers in a Given Range**

```
class SumOfFirst50Numbers {  
    public static void main(String[] args) {  
        int sum = 0;  
  
        for (int i = 1; i <= 50; i++) {  
            sum += i;  
        }  
  
        System.out.println("Sum of the first 50 natural numbers is: " + sum);  
    }  
}
```

## **C# Program to Check Whether a Number is Positive or Not**

```
import java.util.*;

class PosistiveNegative{

    public static void main(String[] args) {

        int num;

        System.out.println("Enter number you want");

        Scanner sc = new Scanner(System.in);

        num = sc.nextInt();

        if(num<0){

            System.out.println("Number you enterd is Negative");

        }

        else{

            System.out.println("Number you enterd is Positive");

        }

    }

}
```

## **C# Program to Find the Largest of Two Numbers**

```
import java.util.*;

class LargestNumber{

    public static void main(String[] args) {

        int num1, num2;

        System.out.println("Enter number you want");

        Scanner sc = new Scanner(System.in);

        num1 = sc.nextInt();

        num2 = sc.nextInt();

        if(num1<num2){

            System.out.println("num2 is greater");

        }

        else{

            System.out.println("num1 is greater");

        }

    }

}
```

## **C# Program to Swap Two Numbers**

```
import java.util.*;

class Swap {

    public static void main(String[] args) {

        int num1, num2;

        System.out.println("Enter number you want");

        Scanner sc = new Scanner(System.in);

        num1 = sc.nextInt();

        num2 = sc.nextInt();

        System.out.println("Numbers Before swapping");

        System.out.println("Num1="+num1);

        System.out.println("Num2="+num2);

        int temp = num1;

        num1 = num2;

        num2 = temp;

        System.out.println("Numbers After swapping");

        System.out.println("Num1="+num1);

        System.out.println("Num2="+num2);
```

```
}  
}
```

### **C# Program to Check if a Number is Divisible by 2**

```
import java.util.*;
```

```
class Swap {
```

```
    public static void main(String[] args) {
```

```
        int num;
```

```
        System.out.println("Enter number you want");
```

```
        Scanner sc = new Scanner(System.in);
```

```
        num = sc.nextInt();
```

```
        if (num%2 == 0){
```

```
            System.out.println("Number you entered is divisible by 2");
```

```
        }
```

```
        else{
```

```
            System.out.println("Number you entered is not divisible by 2");
```

```
        }
```

```
    }
```

```
}
```

## **C# Program to Find the Sum of All the Multiples of 3 and 5**

```
import java.util.Scanner;
```

```
class HelloWorld {
```

```
    public static void main(String[] args) {
```

```
        int num, sum = 0;
```

```
        Scanner sc = new Scanner(System.in);
```

```
        System.out.println("Enter Range that you want to...!");
```

```
        num = sc.nextInt();
```

```
        for (int i = 1; i < num; i++) {
```

```
            if (i % 3 == 0 || i % 5 == 0) {
```

```
                sum += i;
```

```
            }
```

```
        }
```

```
        System.out.println("Sum of multiples of 3 and 5 below " + num + " is: " + sum);
```

```
    }
```

```
}
```

### **C# Program to Find Sum of Digits of a Number**

```
import java.util.Scanner;
```

```
class SumOfDigits {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        System.out.println("Enter a number:");
```

```
        int num = sc.nextInt();
```

```
        int sum = 0;
```

```
        int originalNum = num;
```

```
        while (num > 0) {
```

```
            sum += num % 10;
```

```
            num /= 10;
```

```
        }
```

```
        System.out.println("Sum of the digits of " + originalNum + " is: " + sum);
```

```
    }
```

```
}
```



## **C# Program to Reverse a Number**

```
import java.util.Scanner;

class ReverseNumber {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter a number:");

        int num = sc.nextInt();

        int reversedNum = 0;

        while (num != 0) {

            int digit = num % 10;

            reversedNum = reversedNum * 10 + digit;

            num /= 10;

        }

        System.out.println("Reversed number is: " + reversedNum);

    }

}
```

## **C# Program to Reverse a Number and Check if it is a Palindrome**

```
import java.util.Scanner;

class PalindromeCheck {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter a number:");

        int num = sc.nextInt();

        int originalNum = num;

        int reversedNum = 0;

        while (num != 0) {

            int digit = num % 10;

            reversedNum = reversedNum * 10 + digit;

            num /= 10;

        }

        if (originalNum == reversedNum) {

            System.out.println(originalNum + " is a palindrome.");

        } else {

            System.out.println(originalNum + " is not a palindrome.");

        }

    }

}
```

```
}
```

### **C# Program to Find the Sum of Two Binary Numbers**

```
import java.util.Scanner;
```

```
class BinarySum {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        String binary1 = sc.nextLine();
```

```
        String binary2 = sc.nextLine();
```

```
        int decimal1 = Integer.parseInt(binary1, 2);
```

```
        int decimal2 = Integer.parseInt(binary2, 2);
```

```
        int sumDecimal = decimal1 + decimal2;
```

```
        String binarySum = Integer.toBinaryString(sumDecimal);
```

```
        System.out.println(binarySum);
```

```
    }
```

```
}
```

## **C# Program to Multiply Two Binary Numbers**

```
import java.util.Scanner;
```

```
class BinaryProduct {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        String binary1 = sc.nextLine();
```

```
        String binary2 = sc.nextLine();
```

```
        int decimal1 = Integer.parseInt(binary1, 2);
```

```
        int decimal2 = Integer.parseInt(binary2, 2);
```

```
        int productDecimal = decimal1 * decimal2;
```

```
        String binaryProduct = Integer.toBinaryString(productDecimal);
```

```
        System.out.println(binaryProduct);
```

```
    }
```

```
}
```

### **C# Program to Calculate the Sum, Multiplication, Division and Subtraction of Two Numbers(use switch case)**

```
import java.util.Scanner;

class BasicCalculator {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter first number:");

        double num1 = sc.nextDouble();

        System.out.println("Enter second number:");

        double num2 = sc.nextDouble();

        System.out.println("Choose operation: 1 for Sum, 2 for Multiplication, 3 for Division, 4
for Subtraction");

        int choice = sc.nextInt();

        double result;

        switch (choice) {

            case 1:

                result = num1 + num2;

                System.out.println("Sum: " + result);

                break;

            case 2:
```

```
result = num1 * num2;
```

```
System.out.println("Multiplication: " + result);
```

```
break;
```

```
case 3:
```

```
if (num2 != 0) {
```

```
    result = num1 / num2;
```

```
    System.out.println("Division: " + result);
```

```
} else {
```

```
    System.out.println("Cannot divide by zero.");
```

```
}
```

```
break;
```

```
case 4:
```

```
result = num1 - num2;
```

```
System.out.println("Subtraction: " + result);
```

```
break;
```

```
default:
```

```
System.out.println("Invalid choice.");
```

```
}
```

```
}
```

```
}
```

### **C# Program to Generate Fibonacci Series**

```
import java.util.Scanner;

class FibonacciSeries {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter the number of terms in the Fibonacci series:");

        int terms = sc.nextInt();

        int f1 = 0, f2 = 1;

        System.out.print("Fibonacci Series: ");

        for (int i = 0; i < terms; i++) {

            System.out.print(f1 + " ");

            int next = f1 + f2;

            f1 = f2;

            f2 = next;

        }

    }

}
```

## **C# Program to Print the Factorial of a Given Number**

```
import java.util.Scanner;

class Factorial {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter a number:");

        int num = sc.nextInt();

        long factorial = 1;

        for (int i = 1; i <= num; i++) {

            factorial *= i;

        }

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

    }

}
```



### **C# Program to Print All the Prime Numbers between 1 to 100**

```
class PrimeNumbers {  
  
    public static void main(String[] args) {  
  
        System.out.println("Prime numbers between 1 and 100:");  
  
        for (int num = 2; num <= 100; num++) {  
  
            boolean isPrime = true;  
  
            for (int i = 2; i <= Math.sqrt(num); i++) {  
  
                if (num % i == 0) {  
  
                    isPrime = false;  
  
                    break;  
  
                }  
  
            }  
  
            if (isPrime) {  
  
                System.out.print(num + " ");  
  
            }  
  
        }  
  
    }  
}
```

## **C# Program to Find the Largest Prime Factor of a Number**

```
import java.util.Scanner;

class LargestPrimeFactor {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        long num = sc.nextLong();

        long largestPrime = -1;

        while (num % 2 == 0) {

            largestPrime = 2;

            num /= 2;

        }

        for (long i = 3; i * i <= num; i += 2) {

            while (num % i == 0) {

                largestPrime = i;

                num /= i;

            }

        }

        if (num > 2) {

            largestPrime = num;

        }

    }

}
```

```
}
```

```
System.out.println(largestPrime);
```

```
}
```

```
}
```

## **C# Program to Check Whether a Given Number is Perfect Number**

```
import java.util.Scanner;
```

```
class PerfectNumber {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        System.out.println("Enter a number:");
```

```
        int num = sc.nextInt();
```

```
        int sum = 0;
```

```
        for (int i = 1; i <= num / 2; i++) {
```

```
            if (num % i == 0) {
```

```
                sum += i;
```

```
            }
```

```
        }
```

```
        if (sum == num) {
```

```
            System.out.println(num + " is a perfect number.");
```

```
        } else {
```

```
            System.out.println(num + " is not a perfect number.");
```

```
        }
```

```
    }
```

```
}
```

### **C# Program to Check Armstrong Number**

```
import java.util.Scanner;
```

```
class ArmstrongNumber {
```

```
    public static void main(String[] args) {
```

```
        Scanner sc = new Scanner(System.in);
```

```
        System.out.println("Enter a number:");
```

```
        int num = sc.nextInt();
```

```
        int originalNum = num;
```

```
        int sum = 0;
```

```
        int digits = String.valueOf(num).length();
```

```
        while (num > 0) {
```

```
            int digit = num % 10;
```

```
            sum += Math.pow(digit, digits);
```

```
            num /= 10;
```

```
        }
```

```
        if (sum == originalNum) {
```

```
            System.out.println(originalNum + " is an Armstrong number.");
```

```
        } else {
```

```
            System.out.println(originalNum + " is not an Armstrong number.");
```

```
}  
  
}  
  
}
```

**C# Program to Print Armstrong Number between 1 to 1000**

```

class ArmstrongNumbers {
    public static void main(String[] args) {
        for (int num = 1; num <= 1000; num++) {
            int originalNum = num;
            int sum = 0;
            int digits = String.valueOf(num).length();

            while (num > 0) {
                int digit = num % 10;
                sum += Math.pow(digit, digits);
                num /= 10;
            }

            if (sum == originalNum) {
                System.out.print(originalNum + " ");
            }

            num = originalNum;
        }
    }
}

```

**C# Program to Generate the Sum of N Numbers**

```
import java.util.Scanner;

class SumOfNNumbers {

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter the value of N:");

        int n = sc.nextInt();

        int sum = 0;

        for (int i = 1; i <= n; i++) {

            sum += i;

        }

        System.out.println("Sum of the first " + n + " numbers is: " + sum);

    }

}
```

**C# Program to Find the Sum of First 50 Natural Numbers using For Loop**



```
class SumOfFirst50Numbers {  
    public static void main(String[] args) {  
        int sum = 0;  
  
        for (int i = 1; i <= 50; i++) {  
            sum += i;  
        }  
  
        System.out.println("Sum of the first 50 natural numbers is: " + sum);  
    }  
}
```