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Batch: **1154**

Homework: **Control Statements (Set 3)**

Question:

Questions are printed in method.

Answer:

```java
public class Set3 {
    boolean isEven(int n) {
        System.out.println("Q1 WAP to accept a number and check if its even");
        return n%2==0? true: false;
    }

    boolean isOdd(int n) {
        System.out.println("\n\nQ2 WAP to accept a number and check if its odd");
        return n%2!=0? true: false;
    }

    String isEvenOdd(int n) {
        System.out.println("\n\nQ3 WAP to accept a number and find if it's even or odd");
        return n%2==0? "Even": "Odd";
    }

    String isNegativeZeroPositive(int n) {
        System.out.println("\n\nQ4 WAP to accept a number and find if it's Zero, Negative, Positive");
        return n==0? "Zero": n>0? "Positive": "Negative";
    }

    int smallestNumber(int a, int b) {
```

```java
        System.out.println("\n\nQ5 WAP to accept 2 numbers and find
smallest number");
        return a<b? a: b;
    }

    int largestNumber(int a, int b) {
        System.out.println("\n\nQ6 WAP to accept 2 numbers and find
largest number");
        return a>b? a: b;
    }

    int evenSum(int a, int b) {
        System.out.println("\n\nQ7 WAP to accept 2 numbers and find
sum of 2 even numbers");
        return a%2==0 && b%2==0? a+b: 0;
    }

    int oddSum(int a, int b) {
        System.out.println("\n\nQ8 WAP to accept 2 numbers and find
sum of 2 odd numbers");
        return a%2!=0 && b%2!=0? a+b: 0;
    }

    int sum(int a, int b) {
        System.out.println("\n\nQ9 WAP to accept 2 numbers and find
sum of 2 even or odd numbers");
        return a+b;
    }

    String weekday(int d) {
        System.out.println("\n\nQ10 WAP to accept a day of week(int)
and display the weekday");
        switch(d) {
```

```java
                case 1: return "Monday";
                case 2: return "Tuesday";
                case 3: return "Wednesday";
                case 4: return "Thursday";
                case 5: return "Friday";
                case 6: return "Saturday";
                case 7: return "Sunday";
                default: return "Enter valid day";
            }
        }
}
```

```java
import java.util.Scanner;
public class TestSet3 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int a, b;

        System.out.print("Enter 2 numbers : ");
        a = sc.nextInt();
        b = sc.nextInt();
        sc.close();

        Set3 s3 = new Set3();

        System.out.println(a+": "+s3.isEven(a));
        System.out.println(a+": "+s3.isOdd(a));
        System.out.println(a+": "+s3.isEvenOdd(a));
        System.out.println(a+": "+s3.isNegativeZeroPositive(a));
        System.out.println(a+", "+b+": "+s3.smallestNumber(a, b));
        System.out.println(a+", "+b+": "+s3.largestNumber(a, b));
        System.out.println(a+", "+b+": "+s3.evenSum(a, b));
        System.out.println(a+", "+b+": "+s3.oddSum(a, b));
```

```java
            System.out.println(a+", "+b+": "+s3.sum(a, b));
            System.out.println(a+": "+s3.weekday(a));
    }
}
```

Write a menu driven program for arithmetic operation.

Answer:

```java
import java.util.Scanner;
public class ArithmeticMenu {
    static void add(int a, int b) {
        System.out.println(a+" + "+b+" = "+(a+b));
    }

    static void sub(int a, int b) {
        System.out.println(a+" - "+b+" = "+(a-b));
    }

    static void mul(int a, int b) {
        System.out.println(a+" * "+b+" = "+(a*b));
    }

    static void div(int a, int b) {
        System.out.println(a+" / "+b+" = "+(a/b));
    }
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int ch, a, b;
        System.out.print("Enter 2 numbers: ");
        a = sc.nextInt();
        b = sc.nextInt();
        while(true){
```

```java
            System.out.print("1: Addition\n2: Subtraction\n3:
Multiplication\n4: Division\n5: Exit\n\nEnter choice: ");
            ch = sc.nextInt();
            if(ch == 1)
                ArithmeticMenu.add(a, b);
            else if(ch == 2)
                ArithmeticMenu.sub(a, b);
            else if(ch == 3)
                ArithmeticMenu.mul(a, b);
            else if(ch == 4)
                ArithmeticMenu.div(a, b);
            else if(ch == 5)
                break;
            else
                System.out.println("Enter valid choice.");
        }
        System.out.println("End of program.");
    }
}
```