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Class -SY D

ROLL NO:35

Subject: Programming with Java

1. Write a program to print your first_name, middle_name, Last_name, DOB, class, Div, contact_number, email_id.

```
2. public class PersonalInformation {
3.
       public static void main(String[] args) {
4.
           String firstName = "NAVDIP";
5.
           String middleName = "ABC";
6.
           String lastName = "TALASANIYA";
           String dob = 09/04/2004;
8.
           String className = "SEM 4";
9.
           String div = "D";
10.
           String contactNumber = "9687013404";
11.
           String emailId = "abc.doe@example.com";
12.
           System.out.println("First Name: " + firstName);
13.
           System.out.println("Middle Name: " + middleName);
14.
15.
           System.out.println("Last Name: " + lastName);
16.
           System.out.println("Date of Birth: " + dob);
17.
           System.out.println("Class: " + className);
18.
           System.out.println("Division: " + div);
19.
           System.out.println("Contact Number: " + contactNumber);
20.
           System.out.println("Email ID: " + emailId);
21.
22.}
23.
24.OUTPUT
26.First Name: NAVDIP
27.Middle Name: ABC
28.Last Name: TALASANIYA
29.Date of Birth: 09/04/2004
30.Class: SEM 4
31. Division: D
32.Contact Number: 9687013404
33.Email ID: abc.doe@example.com
```

2. Write a program to demonstrate all data types.

```
public class DataTypes {
   public static void main(String[] args) {
     int integer = 5;
```

```
float floatNumber = 5.5f;
        double doubleNumber = 10.99;
        char character = 'A';
        String text = "Hello, World!";
        boolean isTrue = true;
        long longNumber = 100000L;
        byte byteValue = 127;
        short shortValue = 32767;
        System.out.println("Integer: " + integer);
        System.out.println("Float: " + floatNumber);
        System.out.println("Double: " + doubleNumber);
        System.out.println("Char: " + character);
        System.out.println("String: " + text);
        System.out.println("Boolean: " + isTrue);
        System.out.println("Long: " + longNumber);
        System.out.println("Byte: " + byteValue);
        System.out.println("Short: " + shortValue);
OUTPUT
Integer: 5
Float: 5.5
Double: 10.99
Char: A
String: Hello, World!
Boolean: true
Long: 100000
Byte: 127
Short: 32767
```

3. Write a program to demonstrate all types of literals.

```
class Literals {
   public static void main(String[] args) {
      int intLiteral = 100;
      double doubleLiteral = 5.5;
      char charLiteral = 'A';
      boolean booleanLiteral = true;
      String stringLiteral = "Java";
      float floatLiteral = 3.14f;
      long longLiteral = 10000000000L;

      System.out.println("Integer Literal: " + intLiteral);
      System.out.println("Double Literal: " + doubleLiteral);
      System.out.println("Char Literal: " + charLiteral);
```

```
System.out.println("Boolean Literal: " + booleanLiteral);
    System.out.println("String Literal: " + stringLiteral);
    System.out.println("Float Literal: " + floatLiteral);
    System.out.println("Long Literal: " + longLiteral);
}

OUTPUT

Integer Literal: 100

Double Literal: 5.5
Char Literal: A

Boolean Literal: true

String Literal: Java
Float Literal: 3.14
Long Literal: 100000000000
```

4. Write a program to calculate area of circle.

```
import java.util.Scanner;

class AreaOfCircle {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the radius of the circle: ");
        double radius = sc.nextDouble();
        double area = Math.PI * radius * radius;
        System.out.println("Area of the circle: " + area);
    }
}

OUTPUT

Enter the radius of the circle: 10
Area of the circle: 314.1592653589793
```

5. Write a program to perform all arithmetic operations. (+, -,*, /, %)

```
import java.util.Scanner;

public class ArithmeticOperations {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the first number: ");
        double num1 = sc.nextDouble();
        System.out.print("Enter the second number: ");
        double num2 = sc.nextDouble();
```

```
System.out.println("Addition: " + (num1 + num2));
System.out.println("Subtraction: " + (num1 - num2));
System.out.println("Multiplication: " + (num1 * num2));
System.out.println("Division: " + (num1 / num2));
System.out.println("Modulus: " + (num1 % num2));
}

OUTPUT

Enter the first number: 10
Enter the second number: 10
Addition: 20.0
Subtraction: 0.0
Multiplication: 100.0
Division: 1.0
Modulus: 0.0
```

6. Write a program to calculate area of triangle.

```
import java.util.Scanner;

public class AreaOfTriangle {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter the base of the triangle: ");
        double base = sc.nextDouble();
        System.out.print("Enter the height of the triangle: ");
        double height = sc.nextDouble();
        double area = 0.5 * base * height;
        System.out.println("Area of the triangle: " + area);
    }
}

OUTPUT

Enter the base of the triangle: 10
Enter the height of the triangle: 10
Area of the triangle: 50.0
```

7. Write a program to perform following arithmetic expression. a. 10*10/5+3-1*4/2

```
public class ArithmeticExpression
{
    public static void main(String[] args)
    {
       int result = 10 * 10 / 5 + 3 - 1 * 4 / 2;
}
```

```
System.out.println("Result of the expression: " + result);
}
OUTPUT
Result of the expression: 21
```

8. Write a program to check whether the number is positive or negative or zero.

```
import java.util.Scanner;

public class CheckPositiveNegativeZero {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter a number: ");
        int num = sc.nextInt();

        if (num > 0) {
            System.out.println("The number is positive.");
        } else if (num < 0) {
            System.out.println("The number is negative.");
        } else {
            System.out.println("The number is zero.");
        }
    }
}

OUTPUT

Enter a number: 0
The number is zero.</pre>
```

9. Write a program that takes a number (1-7) and prints the corresponding day of the week using a switch statement.

```
break;
            case 2:
                System.out.println("Monday");
                break;
            case 3:
                System.out.println("Tuesday");
                System.out.println("Wednesday");
                break;
            case 5:
                System.out.println("Thursday");
                break;
            case 6:
                System.out.println("Friday");
                break;
                System.out.println("Saturday");
                break:
            default:
                System.out.println("Invalid input. Please enter a number
between 1 and 7.");
OUTPUT
Enter a number between 1 and 7: 1
Sunday
```

10. Write a program to print 1 to 100 number using do...while loop.

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```

```
99
100
```

11. Write a program to print following pattern.

```
public class NumberPattern {
    public static void main(String[] args)
        for (int i = 1; i <= 5; i++)
            for (int j = 1; j <= i; j++)
                System.out.print(j);
            System.out.println();
/*OUTPUT
12
123
1234
12345*/
public class AlphabetPattern
    public static void main(String[] args)
        for (int i = 0; i < 5; i++)
            char ch = (char)('A' + i);
            for (int j = 0; j <= i; j++)
                System.out.print(ch);
            System.out.println();
/*OUTPUT
```

```
ccc
DDDD
EEEEE*/
public class AlphabetPattern
{
   public static void main(String[] args)
   {
      int rows = 5;
      for (int i = 1; i <= rows; i++)
      {
        for (char ch = 'A'; ch < 'A' + i; ch++)
        {
            System.out.print(ch);
        }
        System.out.println("A");
    }
}</pre>
```