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**Date: 02/03/2022**

**Assignment 2:-**

**1. Write a Java program to print 'Hello' on screen and then print your name on a separate line.**

Expected Output : Hello Alexandra Abramov

class Question1

{

    public static void main(String[] args) {

        System.out.println("Hello");

        System.out.println("My name is Ashok Pate");

    }

}

**2. Write a Java program to print the sum of two numbers.**

Test Data: 74 + 36

class Question2 {

    public static void main(String[] args) {

        int num1=74;

        int num2=36;

        int ans;

        ans=num1+num2;

        System.out.println(ans);

    }

}

**3. Write a Java program to divide two numbers and print on the screen.**

Test Data : 50/3 Expected Output : 16

public class Question3 {

    public static void main(String[] args) {

        int num1=50;

        int num2=3;

        int ans;

        ans=num1/num2;

        System.out.println(ans);

    }

}

**4. Write a Java program to print the result of the following operations**.

Test Data: a. -5 + 8 \* 6 b. (55+9) % 9 c. 20 + -3\*5 / 8 d. 5 + 15 / 3 \* 2 - 8 % 3

Expected Output : 43 1 19 13

public class Question4 {

    public static void main(String[] args) {

        int ans1,ans2,ans3,ans4;

        ans1=-5+8\*6;

        ans2= (55+9)% 9;

        ans3= 20 + -3\*5 / 8;

        ans4=5 + 15 / 3 \* 2 - 8 % 3;

        System.out.println(ans1);

        System.out.println(ans2);

        System.out.println(ans3);

        System.out.println(ans4);

    }

}

**5. Write a Java program that takes two numbers as input and display the product of two numbers.**

Test Data: Input first number: 25

Input second number: 5 Expected Output : 25 x 5 = 125

public class Question5 {

    public static void main(String[] args) {

         int num1=25;

         int num2=5;

        int ans;

         ans=num1\*num2;

         System.out.println(ans);

    }

}

**6. Write a Java program to print the sum (addition), multiply, subtract, divide and remainder of two numbers.**

Test Data: Input first number: 125

Input second number: 24

Expected Output : 125 + 24 = 149

125 - 24 = 101

125 x 24 = 3000

125 / 24 = 5

125 mod 24 = 5

public class Question6 {

    public static void main(String[] args) {

        int num1=125;

        int num2=24;

        int ans;

        ans=num1+num2;

        System.out.println("The addition of two number is="+ans);

        ans=num1-num2;

        System.out.println("The subtraction of two number is="+ans);

        ans=num1\*num2;

        System.out.println("The multiplication of two number is="+ans);

        ans=num1/num2;

        System.out.println("The division of two number is="+ans);

    }

}

**7. Write a Java program that takes a number as input and prints its multiplication table upto 10.**

Test Data: Input a number: 8 Expected Output : 8 x 1 = 8 8 x 2 = 16 8 x 3 = 24 ... 8 x 10 = 80

public class Question7 {

    public static void main(String[] args) {

        int num1=8;

        int ans;

        System.out.println("The multiplication table of"+num1+ "=");

        for(int i=1; i<=10; i++)

        {

            ans=num1\*i;

            System.out.println(ans);

        }

    }

}

**8. Write a Java program to display the following pattern.**

public class Question8 {

    public static void main(String[] args) {

        System.out.println("   J     a     v     v     a");

        System.out.println("   J    a a     v   v     a a");

        System.out.println("J  J   aaaaa     v v     aaaaa");

        System.out.println(" JJ   a     a     v     a     a");

    }

}

**9. Write a Java program to compute the specified expressions and print the output.**

**Test Data:**

**((25.5 \* 3.5 - 3.5 \* 3.5) / (40.5 - 4.5))**

**Expected Output**

**2.138888888888889**

public class Question9 {

    public static void main(String[] args) {

        double ans;

        ans=((25.5 \* 3.5 - 3.5 \* 3.5) / (40.5 - 4.5));

        System.out.println(ans);

    }

}

**10. Write a Java program to compute a specified formula.**

**Specified Formula :**

**4.0 \* (1 - (1.0/3) + (1.0/5) - (1.0/7) + (1.0/9) - (1.0/11))**

**Expected Output**

**2.9760461760461765**

public class Question10 {

    public static void main(String[] args) {

        double ans;

        ans=4.0 \* (1 - (1.0/3) + (1.0/5) - (1.0/7) + (1.0/9) - (1.0/11));

        System.out.println(ans);

    }

}

**11. Write a Java program to print the area and perimeter of a circle.**

**Test Data:**

**Radius = 7.5**

**Expected Output**

**Perimeter is = 47.12388980384689  perimeter = 2 · π · r**

**Area is = 176.71458676442586  area=pi x r x r**

public class Question11 {

    public static void main(String[] args) {

        double r1 =7.5;

        final double pie=3.14159;

        double peri,area;

        peri=2 \* pie \* r1;

        System.out.println(peri);

        area=pie\*r1\*r1;

        System.out.println(area);

    }

}

**12. Write a Java program that takes three numbers as input to calculate and print the average of the numbers.**

public class Question12 {

    public static void main(String[] args) {

    int num1=95,num2=77,num3=44;

     int total;

     total=num1+num2+num3;

     float avg;

     avg=total/3;

     System.out.println(avg);

    }

}

**13. Write a Java program to print the area and perimeter of a rectangle.**

**Test Data:**

**Width = 5.5 Height = 8.5**

**Expected Output**

**Area is 5.6 \* 8.5 = 47.60**

**Perimeter is 2 \* (5.6 + 8.5) = 28.20**

public class Question13 {

    public static void main(String[] args) {

    float width=5.6f;

    float height=8.5f;

    float area;

    float peri;

    //     double width=5.6;

    //  double height=8.5;

    // double area;

    // double peri;

    area=width\*height;

    System.out.println(area);

    peri=2\*(width + height);

    System.out.println(peri);

    }

}

**//14. Write a Java program to print an American flag on the screen.**

public class Question14 {

    public static void main(String[] args) {

        System.out.println("\* \* \* \* \* \* =========================");

        System.out.println(" \* \* \* \* \* ==========================");

        System.out.println("\* \* \* \* \* \* =========================");

        System.out.println(" \* \* \* \* \* ==========================");

        System.out.println("\* \* \* \* \* \* =========================");

        System.out.println(" \* \* \* \* \* ==========================");

        System.out.println("=====================================");

        System.out.println("=====================================");

        System.out.println("=====================================");

        System.out.println("=====================================");

        System.out.println("=====================================");

    }

}

By using Loops

public class Question14 {

public static void main(String[] args) {

    String n1 = "\* \* \* \* \* \* ==================================\n \* \* \* \* \*  ==================================";

  String n2 = "==============================================";

  for(int i=0; i<4; i++)

  {

      System.out.println(n1);

  }

  for(int i=0; i<6; i++)

  {

      System.out.println(n2);

  }

}

}

**15. Write a Java program to swap two variables.**

import java.util.\*;

public class Question15 {

    public static void main(String[] args) {

        System.out.println("Enter number1:");

       Scanner var=new Scanner(System.in);

        int num1=var.nextInt();

        System.out.println("Enter number2:");

        int num2=var.nextInt();

        System.out.println("Before Swapping ="+num1);

        System.out.println("Before Swapping ="+num2);

        int temp=num2;

        num2=num1;

        num1=temp;

        System.out.println("After swapping num1 ="+num1);

        System.out.println("After swapping num2 ="+num2);

    }

}

**16. Write a Java program to print a face.**

public class Question16 {

    public static void main(String[] args) {

        System.out.println("   +\"\"\"\"\"+   ");

        System.out.println("  [| o o |]   ");

        System.out.println("   |  ^  |   ");

        System.out.println("   | '-' |   ");

        System.out.println("   +-----+   ");

    }

}