**JAVA QUESTIONS**

1. Length and breadth of a rectangle are 5 and 7 respectively. Write a program to calculate the area and perimeter of the rectangle.

class demo1 {

static int areaRectangle(int a, int b)

{

int area = a \* b;

return area;

}

static int perimeterRectangle(int a, int b)

{

int perimeter = 2\*(a + b);

return perimeter;

}

public static void main (String[] args) {

int a = 5;

int b = 7;

System.out.println("Area = "+ areaRectangle(a, b));

System.out.println("Perimeter = "+ perimeterRectangle(a, b));

}

}

1. Write a program to calculate the perimeter of a triangle having sides of length 2,3 and 5 units.

class demo2 {

    static int findPerimeter(int a, int b, int c)

    {

        // Formula for Perimeter of triangle

        return (a + b + c);

    }

    // Driver method

    public static void main(String[] args)

    {

        int a = 2, b = 3, c = 5;

        System.out.println(findPerimeter(a, b, c));

    }

}

1. Write a program to add 8 to the number 2345 and then divide it by 3. Now, the modulus of the quotient is taken with 5 and then multiply the resultant value by 5. Display the final result.

class demo3{

  public static void main(String[] args){

    System.out.println((((8+2345)/3)%5)\*5);

  }

}

1. Now, solve the above question using assignment operators (eg. +=, -=, \*=).

class demo4 {

    public static void main(String[] args) {

        int a = 2345;

        a += 8;

        a /= 3;

        a %= 5;

        a \*= 5;

        System.out.println("Result is " + a);

    }

}

1. Write a program to check if the two numbers 23 and 45 are equal.

class demo5{

  public static void main(String[] args){

    System.out.println(23 == 45);

  }

}

1. Write a program to print the power of 7 raised to 5.

import java.lang.Math;

class demo6{

  public static void main(String[] args){

    System.out.println(Math.pow(7,5));

  }

}

1. Assign values of variables 'a' and 'b' as 55 and 70 respectively and then check if both the conditions 'a < 50' and 'a < b' are true.

class demo7{

  public static void main(String[] args){

    int a = 55;

    int b = 70;

    System.out.println(a < 50 && a < b);

  }

}

1. Now solve the above question to check if atleast one of the conditions 'a < 50' or 'a < b' is true.

class demo8{

  public static void main(String[] args){

    int a = 55;

    int b = 70;

    System.out.println(a < 50 || a < b);

  }

}

1. If the marks of Robert in three subjects are 78,45 and 62 respectively (each out of 100 ), write a program to calculate his total marks and percentage marks.

import java.text.DecimalFormat;

class demo9 {

    static DecimalFormat df = new DecimalFormat("0.00");

    public static void main(String[] args) {

        int sub1 = 78;

        int sub2 = 45;

        int sub3 = 62;

        double total = sub1 + sub2 + sub3;

        double percentage = (total/300)\*100;

        System.out.println("Total marks = " + (int) total);

        System.out.println("Percentage = " + df.format(percentage));

    }

}

1. Swap the elements with and without the third variable.

**WITH THIRD VARIABLE**

  class demo10{

    public static void main(String[] args) {

        int a, b, c;

        a = 6;

        b = 8;

        c = a;

        a = b;

        b = c;

        System.out.println(a);

        System.out.println(b);

    }

}

**WITHOUT THIRD VARIABLE**

class demo10 {

    public static void main(String[] args) {

        int a, b;

        a = 6;

        b = 8;

        a = a+b;

        b = a-b;

        a = a-b;

        System.out.println(a);

        System.out.println(b);

    }

}

1. Write a program to convert Fahrenheit into Celsius.

class demo11 {

    public static void main(String args[]) {

        float Fahrenheit, Celsius;

        System.out.print("Enter Temperature in Fahrenheit : ");

        Scanner sc = new Scanner(System.in);

        Fahrenheit = sc.nextFloat();

        Celsius = ((Fahrenheit - 32) \* 5) / 9;

        System.out.println("Temperature in Celsius is: " + Celsius);

        sc.close();

    }

}

1. The total number of students in a class are 90 out of which 45 are boys. If 50% of the total students secured grade 'A' out of which 20 are boys, then write a program to calculate the total number of girls getting grade 'A'.

public class demo12 {

    public static void main(String[] args) {

        double total, TotalA, gradeAboys, gradeAgirls;

        total = 90;

        TotalA = (50/100.0) \* total;

        gradeAboys = 20;

        gradeAgirls = TotalA - gradeAboys;

        System.out.println("total number of girls getting grade A : " + (int) gradeAgirls);

    }

}

1. Write a program to calculate the sum of the first and the second last digit of a 5 digit. E.g.- NUMBER : 12345, OUTPUT : 1+4=5

class demo13 {

public static void main(String[] args){

    int n, n1, n2, n3, n4, n5;

    n=12345;

    n1 = n/10000;

    n %= 10000;

    n2 = n/1000;

    n %= 1000;

    n3 = n/100;

    n = n%100;

    n4 = n/10;

    n5 = n/10;

    int sum = first + forth;

    System.out.println("sum: " + sum);

    }

}

1. Take a 4 digit number.Write a program to display a numbers whose digits are 2 greater than the corresponding digits of the number taken.

class demo14 {

    public static void main(String[ ] args) {

        int n = 5696;

        int first  = n/1000+2;

        n = n%1000;

        int second = n/100+2;

        n = n%100;

        int third = n/10+2;

        third = third/10;

        n = n%10;

        int fourth = n+2;

        String result = Integer.toString(first)+Integer.toString(second)+Integer.toString(third)+Integer.toString(fourth);

        System.out.println(result);

      }

}

1. Write a program to calculate the sum of the digits of a 3-digit number.

import java.util.Scanner;

class demo15 {

    public static void main(String args[]) {

        int num, sum = 0;;

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

        Scanner sc = new Scanner(System.in);

        num = sc.nextInt();

        while (num != 0) {

            sum = sum + num % 10;

            num = num / 10;

        }

        System.out.println("Sum of all digits: " + sum);

        sc.close();

    }

}

1. Write a program to reverse a 3-digit number.

import java.util.Scanner;

class demo {

    public static void main(String args[]) {

        int num;

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

        Scanner sc = new Scanner(System.in);

        num = sc.nextInt();

        int rev\_num = 0;

        while (num > 0) {

            rev\_num = rev\_num \* 10 + num % 10;

            num = num / 10;

        }

        System.out.println("Reversed number is: " + rev\_num);

        sc.close();

    }

}