امثلة محلولة عملي على ميتنج 2


```java
public class Test {
    public static void main(String[] args) {
        //Declaration:
        int number1, number2, sum;
        //Initialization:
        number1 = 10;
        number2 = 20;
        //Find sum:
        sum = number1 + number2;
        //Print sum:
        System.out.println(sum);
    }
}
```

Write Java program to read the radius of a circle and find its area. The radius should be a real number.

Note: area = 3.14 * radius * radius

```
import java.util.Scanner;
public class Test2 {
    public static void main(String[] args) {
        double radius, area;
        Scanner s = new Scanner(System.in);
        System.out.print("Enter the radius: ");
        radius = s.nextDouble();
        area = 3.14 * radius * radius;
        System.out.println(area);
    }
}
```

Write program to read the length and the width of the rectangle and prints the perimeter of that rectangle. The length and width of rectangle should be real numbers. Use printf() method to print the perimeter rounded to 2 decimal places.

Note: perimeter = 2 (length + width).

```
import java.util.Scanner;
public class Test5 {
    public static void main(String[] args) {
        double length, width, perimeter;
        Scanner s = new Scanner(System.in);
        System.out.println("Enter length: ");
        length = s.nextDouble();
        System.out.println("Enter width: ");
        width = s.nextDouble();
        perimeter = 2 * (length + width);
        System.out.printf("The value of perimeter = %.2f", perimeter);
    }
}
```

Write Java program to read the radius of a circle. The radius should be a real number. The program calculates and prints the area of circle if the radius is positive, otherwise, the program displays an error message to user.

Note: area = 3.14 * radius * radius

```
import java.util.Scanner;
public class Test6 {
    public static void main(String[] args) {
        double radius, area;
        Scanner s = new Scanner(System.in);
        System.out.print("Enter radius: ");
        radius = s.nextDouble();
        if(radius > 0){
            area = 3.14 * radius * radius;
            System.out.println("area = " + area);
        }else{
            System.out.println("Wrong radius");
        }
    }
}
```

2. Write a Java class called TriangleArea that reads from the user the base of a triangle and its height as real numbers. Then calculates and prints the area of the triangle (rounded to 3 decimal places).

$$area = \frac{1}{2}(base)(height)$$

3. Modify the previous program so that after calculating the area a message is displayed to indicate if the tringle is small or big. A triangle is considered big if its area is 100 or more. Otherwise, it is small.

```
import java.util.Scanner;
public class TriangleArea {
    public static void main(String[] args) {
        double base, hight, area;
        Scanner s = new Scanner(System.in);
        System.out.print("Enter hight: ");
        hight = s.nextDouble();
        System.out.print("Enter base: ");
        base = s.nextDouble();
        area = 1.0 / 2 * base * hight;
        System.out.printf("Aea = %.3f\n", area);
        if(area >= 100){
            System.out.println("Big area");
        }else{
            System.out.println("Small area");
        }
    }
}
```

رابط الشرح على اليوتيوب: https://youtu.be/gwePaAIpqe0

عند وجود أي مشكلة في الوصول إلى المقطع على اليوتيوب يمكنكم التواصل معي على الواتساب

Eng. Ramadan Ibrahim WhatsApp: 00201024805965