

Philip Pesic

Week 7

March 5 2023

Week 7 Prog 2

Exercise 2 - The Circle. In one program, write 3 separate functions, and use them.

Calculate area of circle, parameter radius.

Use math lib 'pow' function to help with calc: calcArea

Calculate diameter of circle, parameter radius: calcDiameter

Calculate circumference of circle, parameter radius: calcCircumference

```
package Prog2;
import java.util.Scanner;
import java.lang.Math;

class prog2 {

    public static double area(double x) {
        double area = Math.PI * (x * x);
        return area;
    }

    public static double diameter(double x) {
        double diameter = x * 2;
        return diameter;
    }

    public static double circumference(double x) {
        double circumference = Math.PI * (x * 2);
        return circumference;
    }

    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);

        System.out.print("Enter Radius: ");
        double radius = input.nextDouble();
        input.close();
```

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```
System.out.println("Area: " + area(radius));
System.out.println("Diameter: " + diameter(radius));
System.out.println("Circumference: " + circumference(radius));

System.out.println("Philip Pesic 3/5/23");
}
}
```

The screenshot shows an IDE with a Java project named 'Week7'. The file explorer on the left shows a folder 'PROGRAMS' containing files 'prog1.java', 'prog2.java', 'prog3.java', 'prog4.java', and 'prog5.java'. The main editor displays the code for 'prog2.java'. The code defines a class 'prog2' with three static methods: 'area', 'diameter', and 'circumference'. The 'main' method uses a 'Scanner' to get the radius from the user and then calls these three methods to calculate and print the area, diameter, and circumference. The output console shows the results for a radius of 4.1: Area: 52.8101725868442, Diameter: 8.2, Circumference: 25.7618597594363. The status bar at the bottom indicates the file is 'Ln 26, Col 23' and the encoding is 'UTF-8'.

I learned: How to use various functions in the math library