

1. Write a class declaration section named **Circle** and include a member function named **getArea()** that can be used to calculate the area of a circle. Comprise the declaration in a complete working program. You may use $\pi = 3.14$.
2. Write a program to define a class named **Circle** and include two data members: **radius** (of type double) and **color** (of type String); and three member functions: **getRadius()**, **getColor()**, and **getArea()** as getters. Also create a constructor with default values for data members (radius = 1.0 and color = "red").
Create three instances of Circle called c1, c2, and c3 shall then be constructed with their respective data members inside the main(), as shown in the instance diagrams.

Instances

<u>c1:Circle</u>	<u>c2:Circle</u>	<u>c3:Circle</u>
-radius=2.0 -color="blue"	-radius=2.0 -color="red"	-radius=1.0 -color="red"
+getRadius() +getColor() +getArea()	+getRadius() +getColor() +getArea()	+getRadius() +getColor() +getArea()

3. Write a program to print the **sum, difference and product of two complex numbers** by creating a class named 'Complex' with member functions for each operation whose real and imaginary parts are entered by the user.