M4: Quiz 4

Due Feb 8 at 11:59pm	**Points** 30	**Questions** 10
Time Limit 12 Minutes		

This quiz is no longer available as the course has been concluded.

Attempt History

	Attempt	Time	Score
LATEST	**Attempt 1**	12 minutes	24 out of 30

Score for this quiz: **24** out of 30
Submitted Feb 8 at 9:48pm
This attempt took 12 minutes.

Question 1	3 / 3 pts

Use the following code, which is the same for all questions, to complete the quiz.

The scope of the variable radius is limited to the constructor.

```java
public class Circle
{
   private double radius;

   public Circle(double radiusIn) {
      radius = radiusIn;
   }

   public double getRadius() {
      return radius;
   }

   public void setRadius(double radiusIn) {
      radius = radiusIn;
   }

   public double area() {
      return Math.PI * Math.pow(radius, 2);
   }

   public String toString() {
      return "The circle has radius " + radius
           + " and area " + area();
   }
}
```

○ True

Correct!

◉ False

Question 2   3 / 3 pts

Use the following code, which is the same for all questions, to complete the quiz.

Which of the following are considered instance data? (choose all that apply)

```java
public class Circle
{
  private double radius;

  public Circle(double radiusIn) {
      radius = radiusIn;
  }

  public double getRadius() {
      return radius;
  }

  public void setRadius(double radiusIn) {
      radius = radiusIn;
  }

  public double area() {
      return Math.PI * Math.pow(radius, 2);
  }

  public String toString() {
      return "The circle has radius " + radius
          + " and area " + area();
  }
}
```

☐ radiusIn

☐ setRadius(double radiusIn)

☐ toString()

Correct!

☑ radius

☐ none of the above

Question 3

0 / 3 pts

Use the following code, which is the same for all questions, to complete the quiz.

Which of the following violate encapsulation? (choose all that apply)

```java
public class Circle
{
  private double radius;

  public Circle(double radiusIn) {
    radius = radiusIn;
  }

  public double getRadius() {
    return radius;
  }

  public void setRadius(double radiusIn) {
    radius = radiusIn;
  }

  public double area() {
    return Math.PI * Math.pow(radius, 2);
  }

  public String toString() {
    return "The circle has radius " + radius
        + " and area " + area();
  }
}
```

u Answered
- ☑ radiusIn

u Answered
- ☑ setRadius(double radiusIn)

u Answered
- ☑ toString()

- ☐ radius

rrect Answer
- ☐ none of the above

Question 4   3 / 3 pts

Use the following code, which is the same for all questions, to complete the quiz.

Which of the following are accessor methods? (choose all that apply)

```java
public class Circle
{
    private double radius;

    public Circle(double radiusIn) {
        radius = radiusIn;
    }

    public double getRadius() {
        return radius;
    }

    public void setRadius(double radiusIn) {
        radius = radiusIn;
    }

    public double area() {
        return Math.PI * Math.pow(radius, 2);
    }

    public String toString() {
        return "The circle has radius " + radius
            + " and area " + area();
    }
}
```

☐ radiusIn

☐ setRadius(double radiusIn)

Correct!   ☑ getRadius()

☐ radius

☐ none of the above

Question 5   3 / 3 pts

Use the following code, which is the same for all questions, to complete the quiz.

Which of the following are mutator methods? (choose all that apply)

```java
public class Circle
{
    private double radius;

    public Circle(double radiusIn) {
        radius = radiusIn;
    }

    public double getRadius() {
        return radius;
    }

    public void setRadius(double radiusIn) {
        radius = radiusIn;
    }

    public double area() {
        return Math.PI * Math.pow(radius, 2);
    }

    public String toString() {
        return "The circle has radius " + radius
            + " and area " + area();
    }
}
```

☐ radiusIn

Correct!

☑ setRadius(double radiusIn)

☐ getRadius()

☐ radius

☐ none of the above

Question 6   3 / 3 pts

Use the following code, which is the same for all questions, to complete the quiz.

Which of the following are Constructors? (choose all that apply)

```java
public class Circle
{
  private double radius;

  public Circle(double radiusIn) {
    radius = radiusIn;
  }

  public double getRadius() {
    return radius;
  }

  public void setRadius(double radiusIn) {
    radius = radiusIn;
  }

  public double area() {
    return Math.PI * Math.pow(radius, 2);
  }

  public String toString() {
    return "The circle has radius " + radius
        + " and area " + area();
  }
}
```

☐ radiusIn

☐ setRadius(double radiusIn)

☐ toString()

☐ radius

Correct!

☑ none of the above

Question 7   3 / 3 pts

Use the following code, which is the same for all questions, to
complete the quiz.

What is the return type of the `setRadius()` method?

```java
public class Circle
{
    private double radius;

    public Circle(double radiusIn) {
        radius = radiusIn;
    }

    public double getRadius() {
        return radius;
    }

    public void setRadius(double radiusIn) {
        radius = radiusIn;
    }

    public double area() {
        return Math.PI * Math.pow(radius, 2);
    }

    public String toString() {
        return "The circle has radius " + radius
            + " and area " + area();
    }
}
```

Correct!

- ◉ void

- ○ radiusIn

- ○ radius

- ○ String

- ○ none of the above

Question 8   0 / 3 pts

Use the following code, which is the same for all questions, to complete the quiz.

Which one of the following is a constant?

```java
public class Circle
{
    private double radius;

    public Circle(double radiusIn) {
        radius = radiusIn;
    }

    public double getRadius() {
        return radius;
    }

    public void setRadius(double radiusIn) {
        radius = radiusIn;
    }

    public double area() {
        return Math.PI * Math.pow(radius, 2);
    }

    public String toString() {
        return "The circle has radius " + radius
            + " and area " + area();
    }
}
```

○ radiusIn

u Answered

◉ radius

rrect Answer

○ Math.PI

○ Circle

○ none of the above

Question 9   3 / 3 pts

Use the following code, which is the same for all questions, to complete the quiz.

Which of the following are access modifiers used in the Circle class? (choose all that apply)

```
public class Circle
{
  private double radius;

  public Circle(double radiusIn) {
    radius = radiusIn;
  }

  public double getRadius() {
    return radius;
  }

  public void setRadius(double radiusIn) {
    radius = radiusIn;
  }

  public double area() {
    return Math.PI * Math.pow(radius, 2);
  }

  public String toString() {
    return "The circle has radius " + radius
      + " and area " + area();
  }
}
```

☐ radiusIn

Correct!   ☑ private

☐ Math.PI

☐ Circle

☐ none of the above

Question 10   3 / 3 pts

Use the following code, which is the same for all questions, to complete the quiz.

How many methods does the Circle class have?

```java
public class Circle
{
    private double radius;

    public Circle(double radiusIn) {
        radius = radiusIn;
    }

    public double getRadius() {
        return radius;
    }

    public void setRadius(double radiusIn) {
        radius = radiusIn;
    }

    public double area() {
        return Math.PI * Math.pow(radius, 2);
    }

    public String toString() {
        return "The circle has radius " + radius
            + " and area " + area();
    }
}
```

○ 0

○ 1

○ 2

○ 3

Correct!   ◉ 4

Quiz Score: **24** out of 30