

## Solving Circle Equations

Name: \_\_\_\_\_

Solve each problem. Round to two decimal places.

1) x value of 3 and radius of 7. Find the value of y.

1. \_\_\_\_\_

2) x value of 3 and radius of 6. Find the value of y.

2. \_\_\_\_\_

3) y value of 3 and x value of 8.49. Find the radius.

3. \_\_\_\_\_

4) x value of 3 and y value of 2. Find the radius.

4. \_\_\_\_\_

5) y value of 3 and x value of 6.32. Find the radius.

5. \_\_\_\_\_

6) x value of 4 and radius of 6. Find the value of y.

6. \_\_\_\_\_

7) x value of 4 and radius of 7. Find the value of y.

7. \_\_\_\_\_

8) y value of 4 and x value of 8.06. Find the radius.

8. \_\_\_\_\_

9) x value of 5 and radius of 8. Find the value of y.

9. \_\_\_\_\_

10) x value of 4 and radius of 10. Find the value of y.

10. \_\_\_\_\_

11) x value of 3 and radius of 9. Find the value of y.

11. \_\_\_\_\_

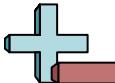
12) y value of 2 and x value of 8.77. Find the radius.

12. \_\_\_\_\_

13) y value of 2 and x value of 9.80. Find the radius.

13. \_\_\_\_\_

**Answers**



# Solving Circle Equations

Name: **Answer Key**

Solve each problem. Round to two decimal places.

- 1) x value of 3 and radius of 7. Find the value of y.

$$y^2 = 7^2 - 3^2$$

$$y = \pm\sqrt{40}$$

- 2) x value of 3 and radius of 6. Find the value of y.

$$y^2 = 6^2 - 3^2$$

$$y = \pm\sqrt{27}$$

- 3) y value of 3 and x value of 8.49. Find the radius.

$$x^2 = 9^2 - 3^2$$

$$x = \pm\sqrt{72}$$

- 4) x value of 3 and y value of 2. Find the radius.

$$r^2 = 3^2 + 2^2$$

$$r = \pm\sqrt{9}$$

- 5) y value of 3 and x value of 6.32. Find the radius.

$$x^2 = 7^2 - 3^2$$

$$x = \pm\sqrt{40}$$

- 6) x value of 4 and radius of 6. Find the value of y.

$$y^2 = 6^2 - 4^2$$

$$y = \pm\sqrt{20}$$

- 7) x value of 4 and radius of 7. Find the value of y.

$$y^2 = 7^2 - 4^2$$

$$y = \pm\sqrt{33}$$

- 8) y value of 4 and x value of 8.06. Find the radius.

$$x^2 = 9^2 - 4^2$$

$$x = \pm\sqrt{65}$$

- 9) x value of 5 and radius of 8. Find the value of y.

$$y^2 = 8^2 - 5^2$$

$$y = \pm\sqrt{39}$$

- 10) x value of 4 and radius of 10. Find the value of y.

$$y^2 = 10^2 - 4^2$$

$$y = \pm\sqrt{84}$$

- 11) x value of 3 and radius of 9. Find the value of y.

$$y^2 = 9^2 - 3^2$$

$$y = \pm\sqrt{72}$$

- 12) y value of 2 and x value of 8.77. Find the radius.

$$x^2 = 9^2 - 2^2$$

$$x = \pm\sqrt{77}$$

- 13) y value of 2 and x value of 9.80. Find the radius.

$$x^2 = 10^2 - 2^2$$

$$x = \pm\sqrt{96}$$

## Answers

1. **±6.32**

2. **±5.20**

3. **±8.49**

4. **±3.61**

5. **±6.32**

6. **±4.47**

7. **±5.74**

8. **±8.06**

9. **±6.24**

10. **±9.17**

11. **±8.49**

12. **±8.77**

13. **±9.80**