



## Solving Circle Equations

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

**Solve each problem. Round to two decimal places.**

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

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

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

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

3) y value of 5 and x value of 6.24. Find the radius.

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

4) x value of 5 and radius of 10. Find the value of y.

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

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

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

6) y value of 3 and x value of 7.42. Find the radius.

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

7) y value of 2 and x value of 6.71. Find the radius.

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

8) x value of 2 and radius of 10. Find the value of y.

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

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

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

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

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

11) y value of 5 and x value of 7.48. Find the radius.

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

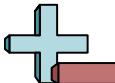
12) x value of 4 and radius of 8. Find the value of y.

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

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

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

**Answers**



# Solving Circle Equations

Name: **Answer Key**

**Solve each problem. Round to two decimal places.**

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

$$\begin{aligned}y^2 &= 8^2 - 4^2 \\y &= \pm\sqrt{48}\end{aligned}$$

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

$$\begin{aligned}r^2 &= 4^2 + 4^2 \\r &= \pm\sqrt{8}\end{aligned}$$

- 3) y value of 5 and x value of 6.24. Find the radius.

$$\begin{aligned}x^2 &= 8^2 - 5^2 \\x &= \pm\sqrt{39}\end{aligned}$$

- 4) x value of 5 and radius of 10. Find the value of y.

$$\begin{aligned}y^2 &= 10^2 - 5^2 \\y &= \pm\sqrt{75}\end{aligned}$$

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

$$\begin{aligned}y^2 &= 6^2 - 3^2 \\y &= \pm\sqrt{27}\end{aligned}$$

- 6) y value of 3 and x value of 7.42. Find the radius.

$$\begin{aligned}x^2 &= 8^2 - 3^2 \\x &= \pm\sqrt{55}\end{aligned}$$

- 7) y value of 2 and x value of 6.71. Find the radius.

$$\begin{aligned}x^2 &= 7^2 - 2^2 \\x &= \pm\sqrt{45}\end{aligned}$$

- 8) x value of 2 and radius of 10. Find the value of y.

$$\begin{aligned}y^2 &= 10^2 - 2^2 \\y &= \pm\sqrt{96}\end{aligned}$$

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

$$\begin{aligned}y^2 &= 8^2 - 4^2 \\y &= \pm\sqrt{48}\end{aligned}$$

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

$$\begin{aligned}r^2 &= 3^2 + 3^2 \\r &= \pm\sqrt{7}\end{aligned}$$

- 11) y value of 5 and x value of 7.48. Find the radius.

$$\begin{aligned}x^2 &= 9^2 - 5^2 \\x &= \pm\sqrt{56}\end{aligned}$$

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

$$\begin{aligned}y^2 &= 8^2 - 4^2 \\y &= \pm\sqrt{48}\end{aligned}$$

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

$$\begin{aligned}y^2 &= 8^2 - 5^2 \\y &= \pm\sqrt{39}\end{aligned}$$

## Answers

1. **±6.93**

2. **±5.66**

3. **±6.24**

4. **±8.66**

5. **±5.20**

6. **±7.42**

7. **±6.71**

8. **±9.80**

9. **±6.93**

10. **±4.24**

11. **±7.48**

12. **±6.93**

13. **±6.24**