

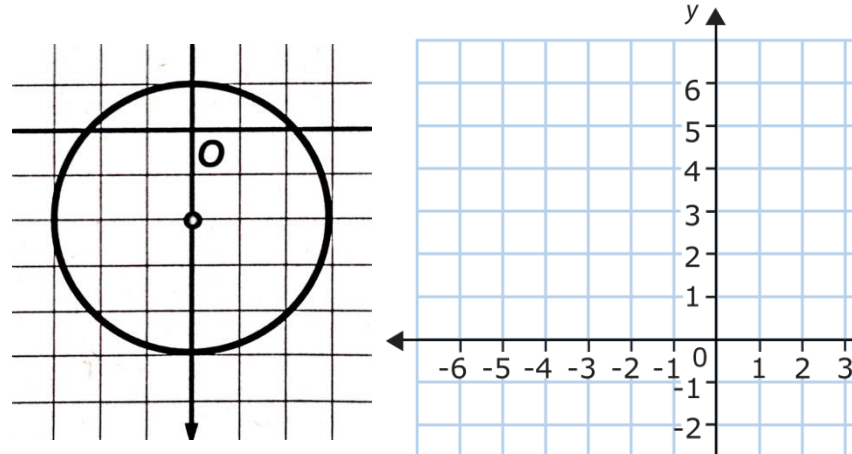
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Chapter 8 Part 2 Review

1. Find the center and radius of the circle: $(x - 1)^2 + (y - 4)^2 = 9$

2. Find the center and radius of the circle: $(x + 8)^2 + (y - 5)^2 = 28$

3. Write the equation of the circle with the center at $(4, 3)$ and radius 7



4. Write the equation of the circle shown.

5. Graph $(x + 2)^2 + (y - 3)^2 = 4$

6. A sprinkler waters a circular area that has a diameter of 12 feet. The sprinkler is located 27 feet west of the house and 3 feet north. If the house is located at the origin, what is the equation of the circle for the area that is being watered?

7. A diameter of circle K has endpoints $(11, 0)$ and $(-11, 0)$.

A. Write the equation of the circle.

B. Determine if the point $(5, 8)$ is on the circle

C. Determine if the point $(-3\sqrt{5}, 2\sqrt{19})$ is on the circle

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8. Write the equation of the circle $x^2 + y^2 - 8x + 12y - 19 = 0$. Then state the center and radius.

9. Write the equation of the circle $x^2 + y^2 - 8x + 4y - 5 = 0$. Then state the center and radius

10. Solve $3x^2 - 72 = 0$

11. Solve $(x - 4)^2 = 36$

12. Describe the necessary transformation to show that circle A is similar to circle A'

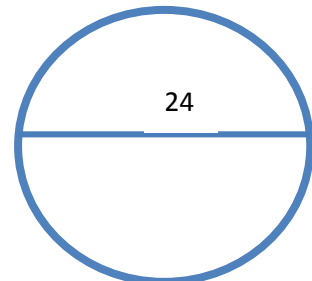
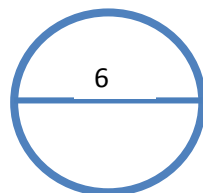
A. Circle A: center (4, 7) radius 3

Circle A': center (-2, 11) radius 15

B. Circle A; center (-5, 4) radius 8

Circle A': center (-1, 1) radius 2

11. Prove the 2 circles are similar



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12. **Practice and know the steps** for the constructions listed below:

*View videos- links at mrkilburn.weebly.com (geometry link then constructions)

A. Square inscribed in a circle

To construct an inscribed square
construct the

of the

B. Hexagon inscribed in a circle

Each side of the hexagon is the length
of the

of the circle

C. Circle inscribed in a triangle

To locate the center of a circle
inscribed in a triangle construct
the _____

