

PREVIEW

What's the chapter about?

Chapter 10 is about **circles** and their properties. In Chapter 10, you'll learn

- how to use arcs, angles, and segments in circles to solve real-life problems.
- how to use the graph of an equation of a circle to model real-life situations.

KEY VOCABULARY

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|-----------------------------|-----------------------------|---|
| • circle, p. 595 | • arc, p. 603 | • circumscribed circle, p. 615 |
| • secant, p. 595 | • measure of an arc, p. 603 | • standard equation of a circle, p. 636 |
| • tangent, p. 595 | • inscribed angle, p. 613 | • locus, p. 642 |
| • point of tangency, p. 597 | • intercepted arc, p. 613 | |
| • central angle, p. 603 | • inscribed polygon, p. 615 | |

PREPARE

Are you ready for the chapter?

SKILL REVIEW Do these exercises to review key skills that you'll apply in this chapter. See the given **reference page** if there is something you don't understand.

Solve the equation or system of equations. (Skills Review pp. 789, 790, 796, 798, 800, 801)

- $(x + 4)^2 = x^2 + 6^2$
- $132 = \frac{1}{2}[(360 - x) - x]$
- $15(y + 15) = 24^2$
- $2z^2 + 7 = 19$
- $8^2 = x(x + 12)$
- $x + y = 18$
 $3x + 4y = 64$
- In $\triangle JKL$, $JK = 8$, $KL = 9$, and $\angle K$ is a right angle. Solve the right triangle. Round decimals to the nearest tenth. (Review Example 1, p. 568)
- Use $A(-3, 0)$ and $B(9, -9)$. Find (a) AB , (b) the coordinates of the midpoint of $\overline{AB}$, (c) an equation for $\overleftrightarrow{AB}$, and (d) the image of $\overline{AB}$ after the translation $(x, y) \rightarrow (x - 4, y)$. (Review pp. 19, 35, 165–167, 422)

STUDY STRATEGY

Here's a study strategy!

Answer Your Questions

Use a red pen to write a large question mark next to any part of a homework question you don't understand. Be sure to get your questions answered by the teacher or another student. Then write a check mark through the question mark when you are able to complete an exercise with which you had difficulty.