Lesson 10.2 Practice: Chords

School Launch · Geometry · Unit 10: Circles · Worksheet A

Calculator allowed

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. A chord is 7 units from the center of a circle of radius 25. How long is the chord? EASY

2. A chord is 8 units from the center of a circle of radius 10. How long is the chord? EASY

3. A chord is 9 units from the center of a circle of radius 15. How long is the chord? EASY

4. A chord is 8 units from the center of a circle of radius 17. How long is the chord? MEDIUM

5. A chord is 5 units from the center of a circle of radius 13. How long is the chord? MEDIUM

6. A chord is 3 units from the center of a circle of radius 5. How long is the chord? MEDIUM

7. A chord is 6 units from the center of a circle of radius 10. How long is the chord? MEDIUM

8. Two secants meet outside a circle, intercepting arcs of 131° and 93°. Find the angle between them. HARD

9. From an external point, a secant has external part 5 and internal (chord) part 8. A tangent from the same point has length t. Find t (simplest radical form). HARD

10. Find the center and radius of $x^2 + 12x + y^2 - 10y + 57 = 0$. HARD