Lesson 11.2 Practice: Circles and Ellipses

School Launch · Algebra II · Unit 11: Conic Sections · Worksheet A

Calculator for decimals

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. For $\frac{(x+4)^2}{64} + \frac{(y+2)^2}{4} = 1$, give the center, the length of the major axis, and the distance from center to each focus. EASY

2. Write the equation of the circle with center $(-3, -5)$ and radius 5. EASY

3. For $\frac{(x+1)^2}{81} + \frac{(y-3)^2}{49} = 1$, give the center, the length of the major axis, and the distance from center to each focus. EASY

4. Find the center and radius of $x^2 + 2x + y^2 - 8y + 13 = 0$. MEDIUM

5. For $\frac{(x+2)^2}{49} + \frac{(y+3)^2}{25} = 1$, give the center, the length of the major axis, and the distance from center to each focus. MEDIUM

6. Find the center and radius of $x^2 - 8x + y^2 + 14y + 64 = 0$. MEDIUM

7. For $\frac{(x-3)^2}{36} + \frac{(y+1)^2}{16} = 1$, give the center, the length of the major axis, and the distance from center to each focus. MEDIUM

8. Find the center and radius of $x^2 + 2x + y^2 - 16y + 56 = 0$. HARD

9. For $\frac{(x)^2}{36} + \frac{(y+3)^2}{16} = 1$, give the center, the length of the major axis, and the distance from center to each focus. HARD

10. Find the center and radius of $x^2 + 14x + y^2 + 10y + 25 = 0$. HARD