Lesson 11.1 Practice: Parabolas: Focus and Directrix

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. A parabola has vertex $(-5, -4)$ and focus $(-5, -6)$. Write its equation and the directrix. EASY

2. A parabola has vertex $(3, 1)$ and focus $(3, 2)$. Write its equation and the directrix. EASY

3. A parabola has vertex $(-3, -2)$ and focus $(-3, -1)$. Write its equation and the directrix. EASY

4. A parabola has vertex $(4, -3)$ and focus $(4, -\frac{5}{2})$. Write its equation and the directrix. MEDIUM

5. A parabola has vertex $(3, -4)$ and focus $(3, -3)$. Write its equation and the directrix. MEDIUM

6. A parabola has vertex $(1, 3)$ and focus $(1, \frac{7}{2})$. Write its equation and the directrix. MEDIUM

7. A parabola has vertex $(2, 5)$ and focus $(2, 3)$. Write its equation and the directrix. MEDIUM

8. A parabola has vertex $(5, 4)$ and focus $(5, 2)$. Write its equation and the directrix. HARD

9. A parabola has vertex $(-1, 2)$ and focus $(-1, \frac{5}{2})$. Write its equation and the directrix. HARD

10. A parabola has vertex $(1, -4)$ and focus $(1, -5)$. Write its equation and the directrix. HARD