

LESSON
9.2

Practice A

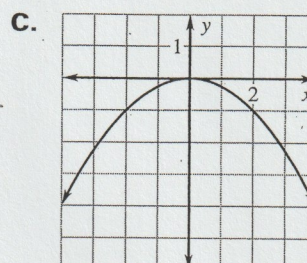
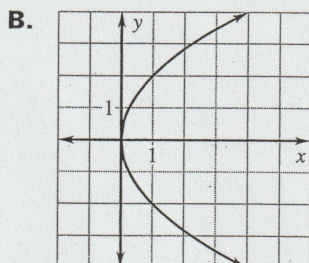
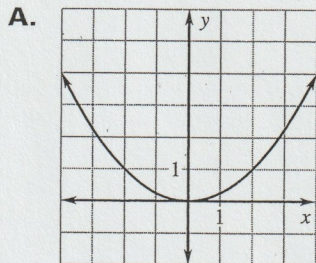
For use with pages 620–625

Match the equation with its graph.

1. $x^2 = 4y$

2. $x^2 = -4y$

3. $y^2 = 4x$



Tell whether the parabola opens up, down, left, or right.

4. $x^2 = 6y$

5. $x^2 = -7y$

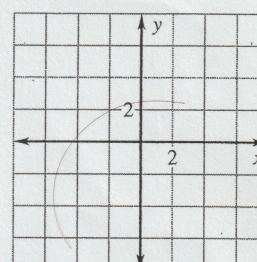
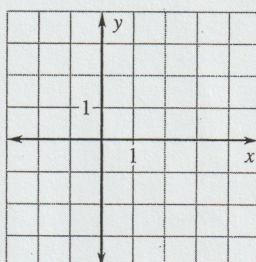
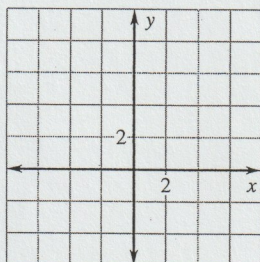
6. $y^2 = -4x$

Graph the equation. Identify the focus and directrix of the parabola.

7. $x^2 = 4y$

8. $y^2 = 2x$

9. $x^2 = -12y$



Write the standard form of the equation of the parabola with the given focus and vertex at (0, 0).

10. (1, 0)

11. (0, 1)

12. (-2, 0)

13. (0, -4)

14. (5, 0)

15. (0, 7)

Write the standard form of the equation of the parabola with the given directrix and vertex at (0, 0).

16. $x = 2$

17. $y = -1$

18. $x = -3$

19. $y = 4$

20. $x = -6$

21. $y = 8$

22. **Sailboat Race** The course for a sailboat race includes a turnaround point marked by a stationary buoy. The sailboats must pass between the buoy and the straight shoreline. The boats follow a parabolic path past the buoy, which is 60 yards from the shoreline. Find an equation to represent the parabolic path, so that the boats remain equidistant from the buoy and the straight shoreline.