

Practice A

For use with pages 526–531

Write the equation in the form $ax^2 + bx + c = 0$.

1. $3x^2 = 7$

2. $-x^2 - 5x = 3$

3. $x^2 = 4x - 2$

4. $5 = 2x^2 - 4x$

5. $-x^2 = -3x$

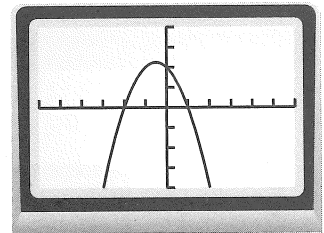
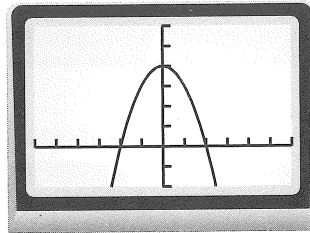
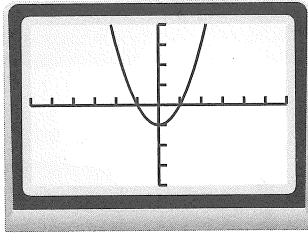
6. $6x^2 - 4x = 8$

For each quadratic equation, use the graph to identify the roots of the equation.

7. $x^2 = 1$

8. $-x^2 + 4 = 0$

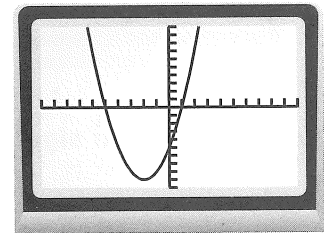
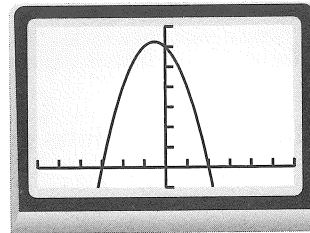
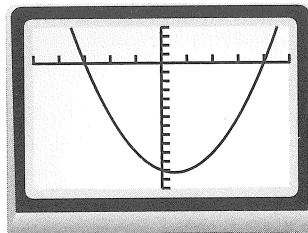
9. $-x^2 - x + 2 = 0$



10. $x^2 - x - 12 = 0$

11. $-x^2 - x + 6 = 0$

12. $x^2 + 4x = 5$



Solve the equation algebraically. Check the solutions graphically.

13. $2x^2 = 8$

14. $3x^2 = 27$

15. $\frac{1}{3}x^2 = 12$

16. $\frac{1}{2}x^2 = 32$

17. $x^2 + 2 = 27$

18. $x^2 - 9 = 40$

Solve the equation graphically. Check the solutions algebraically.

19. $x^2 - 4 = 0$

20. $x^2 - x = 2$

21. $x^2 - 3x = 4$

22. $-x^2 - x = -12$

23. $x^2 + 4 = 5x$

24. $-2x^2 - 4x = -6$

Ball Toss In Exercises 25–28, use the following information.

The height h in feet of a ball t seconds after being tossed upward is given by the formula $h = 84t - 16t^2$.

25. Complete the following table of values.

t	0	1	2	3	4	5
h						

27. Use the graph to find a positive root of the equation $0 = 84t - 16t^2$.

26. Sketch a graph of the model for positive values of x and y .

28. After how many seconds will the ball hit the ground?