

**LESSON
9.6****Practice C**

For use with the lesson "Solve Quadratic Equations by the Quadratic Formula"

Use the quadratic formula to solve the equation. Round your solutions to the nearest hundredth, if necessary.

1. $15x^2 + 8x + 1 = 0$

2. $4x^2 - 6x + 2 = 0$

3. $9x^2 + 9x - 1 = 0$

4. $x^2 - 6x = 15$

5. $4x^2 - 3 = 10x$

6. $2x^2 + 6x + 5 = 7$

7. $8x^2 = 5x^2 + 9x + 3$

8. $-12 = x^2 - 14x + 30$

9. $5x^2 - 10x - 16 = 4x$

10. $10x^2 + 10 = 8 - 6x$

11. $6x^2 - 5x = 3 - 5x^2$

12. $-2x^2 - x + 4 = 2x + 3$

Tell which method(s) you would use to solve the quadratic equation. Explain your choice(s).

13. $13x^2 - 26x = 0$

14. $2x^2 - 9x + 5 = 0$

15. $x^2 - 8x + 1 = 0$

Solve the quadratic equation using any method. Round your solutions to the nearest hundredth, if necessary.

16. $-3x^2 = -18$

17. $x^2 - 5x + 10 = 0$

18. $x^2 + 3x - 1 = 0$

19. $x^2 = 9x - 81$

20. $x^2 + 6x = 10$

21. $-5x^2 + x = 13$

22. $10x^2 - 4 = 6x^2 + 5$

23. $-x^2 - 18 = x^2 + 12x$

24. $(x + 9)^2 = 64$

25. Books For the period 1990–2002, the amount of money y (in billions of dollars) spent in the United States on books and maps can be modeled by the function $y = 0.0178x^2 + 1.5x + 16$ where x is the number of years since 1990.

- Find the year in which 20 billion dollars were spent on books and maps.
- Find the year in which 32 billion dollars were spent on books and maps.
- Graph the function on a graphing calculator. Use the *trace* feature to check your answers from parts (a) and (b).

26. Spectator Sports For the period 1990–2002, the amount of money y (in billions of dollars) spent in the United States on admissions to spectator sports can be modeled by the function $y = 0.0284x^2 + 0.388x + 5$ where x is the number of years since 1990.

- Find the year in which 7 billion dollars were spent.
- Graph the function on a graphing calculator. Use the *trace* feature to find the year in which 7 billion dollars were spent. Use the graph to check your answer from part (a).