Name _____ Date _____

LESSON 10.6

Practice C

For use with pages 671–676

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.

a. Find the year in which 20 billion dollars were spent on books and maps.

b. Find the year in which 32 billion dollars were spent on books and maps.

c. 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.

a. Find the year in which 7 billion dollars were spent.

b. 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).

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