Practice and Problem Solving

Extra Practice is on page R9.

Example 1 **Find the value of c that makes each trinomial a perfect square.**

10. $x^2 + 26x + c$

11. $x^2 - 24x + c$

12. $x^2 - 19x + c$

13. $x^2 + 17x + c$

14. $x^2 + 5x + c$

15. $x^2 - 13x + c$

16. $x^2 - 22x + c$

17. $x^2 - 15x + c$

18. $x^2 + 24x + c$

Examples 2–3 **Solve each equation by completing the square. Round to the nearest tenth if necessary.**

19. $x^2 + 6x - 16 = 0$

20. $x^2 - 2x - 14 = 0$

21. $x^2 - 8x - 1 = 8$

22. $x^2 + 3x + 21 = 22$

23. $x^2 - 11x + 3 = 5$

24. $5x^2 - 10x = 23$

25. $2x^2 - 2x + 7 = 5$

26. $3x^2 + 12x + 81 = 15$

27. $4x^2 + 6x = 12$

28. $4x^2 + 5 = 10x$

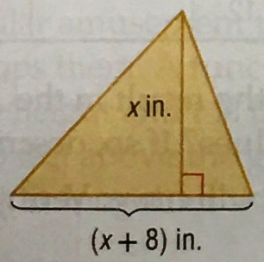
29. $-2x^2 + 10x = -14$

30. $-3x^2 - 12 = 14x$

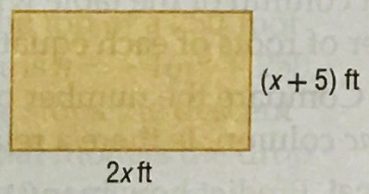
Example 4 **31. FINANCIAL LITERACY** The price p in dollars for a particular stock can be modeled by the quadratic equation $p = 3.5t - 0.05t^2$, where t represents the number of days after the stock is purchased. When is the stock worth \$60?

GEOMETRY **Find the value of x for each figure. Round to the nearest tenth if necessary.**

32. $A = 45$ in^2



33. $A = 110$ ft^2



34. NUMBER THEORY The product of two consecutive even integers is 224. Find