

**LESSON**  
**8.5****Practice A**For use with the lesson "Factor  $x^2 + bx + c$ "**Match the trinomial with its correct factorization.**

1.  $x^2 - 4x - 12$

2.  $x^2 - x - 12$

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

A.  $(x + 6)(x - 2)$

B.  $(x - 6)(x + 2)$

C.  $(x + 3)(x - 4)$

**Factor the trinomial.**

4.  $x^2 + 6x + 5$

5.  $a^2 + 10a + 21$

6.  $w^2 + 8w + 15$

7.  $p^2 - 3p - 10$

8.  $c^2 + 10c - 11$

9.  $y^2 + 5y - 14$

10.  $n^2 - 4n + 3$

11.  $b^2 - 5b + 6$

12.  $r^2 - 12r + 35$

13.  $z^2 + 7z + 12$

14.  $s^2 - 3s - 18$

15.  $d^2 - 5d - 24$

**Solve the equation.**

16.  $x^2 + 5x + 4 = 0$

17.  $d^2 + 7d + 10 = 0$

18.  $p^2 + 9p + 14 = 0$

19.  $w^2 - 12w + 11 = 0$

20.  $n^2 - n - 6 = 0$

21.  $a^2 - 12a + 35 = 0$

22.  $y^2 - 4y - 5 = 0$

23.  $m^2 + 2m - 15 = 0$

24.  $b^2 + 6b - 7 = 0$

**Match the equivalent equations.**

25.  $s(s - 6) = -8$

26.  $s(s - 2) = 8$

27.  $s(s + 2) = 8$

A.  $s^2 - 2s - 8 = 0$

B.  $s^2 + 2s - 8 = 0$

C.  $s^2 - 6s + 8 = 0$

**Solve the equation.**

28.  $w(w + 1) = 12$

29.  $x(x - 3) = 10$

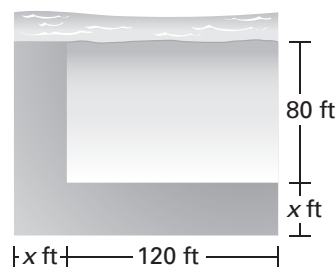
30.  $m(m - 5) = 6$

31.  $b(b + 4) = 21$

32.  $p(p + 5) = 36$

33.  $r(r - 3) = 4$

- 34. Boardwalk** A boardwalk is being built along two sides of a beach area. The beach area is rectangular with a width of 80 feet and a length of 120 feet. The boardwalk will have the same width on each side of the beach area. If the combined area of the beach and the boardwalk is 16,500 square feet, then the area can be modeled by  $(x + 80)(x + 120) = 16,500$ . How wide should the boardwalk be?



- 35. Note Board Design** You are designing a note board that is made of corkboard and dry erase board. The area of the corkboard is 6 square feet.
- Write an equation for the area of the corkboard.
  - Find the dimensions of the corkboard.
  - Find the area of the dry erase board.

