

LESSON
8.5**Practice B**For use with the lesson "Factor $x^2 + bx + c$ "**Factor the trinomial.**

1. $x^2 + 8x + 7$

2. $b^2 - 7b + 10$

3. $w^2 - 12w - 13$

4. $p^2 + 10p + 25$

5. $m^2 - 10m + 24$

6. $y^2 - 5y - 24$

7. $a^2 + 13a + 36$

8. $n^2 + 2n - 48$

9. $z^2 - 14z + 40$

Solve the equation.

10. $y^2 + 17y + 72 = 0$

11. $a^2 - 9a - 36 = 0$

12. $w^2 - 13w + 42 = 0$

13. $m^2 - 5m - 14 = 0$

14. $x^2 + 11x + 24 = 0$

15. $n^2 - 12n + 27 = 0$

16. $d^2 + 5d - 50 = 0$

17. $p^2 + 16p + 48 = 0$

18. $z^2 - z - 30 = 0$

Find the zeros of the polynomial function.

19. $f(x) = x^2 - 5x - 36$

20. $g(x) = x^2 + 8x - 20$

21. $h(x) = x^2 - 11x + 24$

22. $f(x) = x^2 + 11x + 28$

23. $g(x) = x^2 + 11x - 12$

24. $h(x) = x^2 + 3x - 18$

Solve the equation.

25. $x(x + 17) = -60$

26. $p(p - 4) = 32$

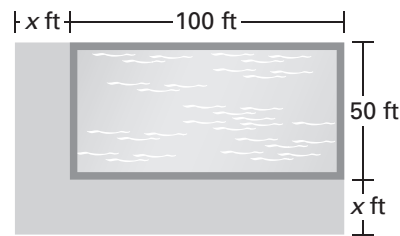
27. $w(w + 8) = -15$

28. $n(n + 6) = 7$

29. $s^2 - 3(s + 2) = 4$

30. $d^2 + 18(d + 4) = -9$

- 31. Patio Area** A community center is building a patio area along two sides of its pool. The pool is rectangular with a width of 50 feet and a length of 100 feet. The patio area will have the same width on each side of the pool.
- Write a polynomial that represents the combined area of the pool and the patio area.
 - The combined area of the pool and patio area should be 8400 square feet. How wide should the patio area be?



- 32. Area Rug** You are creating your own area rug from a square piece of remnant carpeting. You plan on cutting 4 inches from the length and 3 inches from the width. The area of the resulting area rug is 1056 square inches.
- Write a polynomial that represents the area of your area rug.
 - What is the perimeter of the original piece of remnant carpeting?

