

GUIDED PRACTICE

SEE EXAMPLE 1

p. 540

Factor each trinomial by guess and check.

1. $x^2 + 13x + 36$

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

3. $x^2 + 14x + 40$

SEE EXAMPLE 2

p. 541

Factor each trinomial. Check your answer.

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

5. $x^2 + 10x + 16$

6. $x^2 + 15x + 44$

7. $x^2 - 7x + 6$

8. $x^2 - 9x + 14$

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

SEE EXAMPLE 3

p. 542

10. $x^2 - 6x - 7$

11. $x^2 + 6x - 27$

12. $x^2 + x - 30$

13. $x^2 - x - 2$

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

15. $x^2 - 4x - 45$

SEE EXAMPLE 4

p. 543

16. Factor $n^2 + 6n - 7$. Show that the original polynomial and the factored form have the same value for $n = 0, 1, 2, 3$, and 4.

PRACTICE AND PROBLEM SOLVING

Independent Practice

For Exercises	See Example
17–19	1
20–25	2
26–31	3
32	4

Factor each trinomial by guess and check.

17. $x^2 + 13x + 30$

18. $x^2 + 11x + 28$

19. $x^2 + 16x + 48$

Factor each trinomial. Check your answer.

20. $x^2 + 12x + 11$

21. $x^2 + 16x + 28$

22. $x^2 + 15x + 36$

23. $x^2 - 6x + 5$

24. $x^2 - 9x + 18$

25. $x^2 - 12x + 32$

26. $x^2 + x - 12$

27. $x^2 + 4x - 21$

28. $x^2 + 9x - 36$

29. $x^2 - 12x - 13$

30. $x^2 - 10x - 24$

31. $x^2 - 2x - 35$

32. Factor $n^2 - 12n - 45$. Show that the original polynomial and the factored form have the same value for $n = 0, 1, 2, 3$, and 4.

Match each trinomial with its correct factorization.

33. $x^2 + 3x - 10$

A. $(x - 2)(x - 5)$

34. $x^2 - 7x + 10$

B. $(x + 1)(x + 10)$

35. $x^2 - 9x - 10$

C. $(x - 2)(x + 5)$

36. $x^2 + 11x + 10$

D. $(x + 1)(x - 10)$

37. **Write About It** Compare multiplying binomials with factoring polynomials into binomial factors.

Factor each trinomial. Check your answer.

38. $x^2 + x - 20$

39. $x^2 - 11x + 18$

40. $x^2 - 4x - 21$

41. $x^2 + 10x + 9$

42. $x^2 - 12x - 32$

43. $x^2 + 13x + 42$

44. $x^2 - 7x + 12$

45. $x^2 + 11x + 18$

46. $x^2 - 6x - 27$

47. $x^2 + 5x - 24$

48. $x^2 - 10x + 21$

49. $x^2 + 4x - 45$

50. Factor $n^2 + 11n + 28$. Show that the original polynomial and the factored form have the same value for $n = 0, 1, 2, 3$, and 4.