2.2.1 Prime Factorization

Tell whether each number is prime or composite.

1. 31 **2.** 18 **3.** 67 **4.** 8

5. 77 **6.** 5 **7.** 9 **8.** 113

Write the prime factorization of each number.

9. 68 **10.** 75 **11.** 120 **12.** 150

13. 135 **14.** 48 **15.** 154 **16.** 210

17. 800 **18.** 310 **19.** 625 **20.** 2,000

21. 315 **22.** 728 **23.** 187 **24.** 396

25. 1,225 **26.** 288 **27.** 360 **28.** 1,152

2.2.2 Greatest Common Factor

Find the greatest common factor (GCF).

29. 60, 126 **30.** 12, 36 **31.** 75, 90

32. 22, 121 **33.** 28, 42 **34.** 38, 76

35. 28, 60 **36.** 54, 80 **37.** 30, 45, 60, 105

38. 26, 52 **39.** 11, 44, 77 **40.** 18, 27, 36, 48

41. Hetty is making identical gift baskets for the Senior Citizens Center. She has 39 small soap bars and 26 small bottles of lotion. What is the greatest number of baskets she can make using all of the soap bars and bottles of lotion?

2.2.3 Least Common Multiple

Find the least common multiple (LCM).

42. 6, 9

43. 8, 12

44. 15, 20

45. 6, 14

46. 18, 27

47. 8, 10, 12

48. 6, 27

49. 16, 20

50. 12, 15, 22

51. 10, 15, 18, 20

52. 11, 22, 44

53. 8, 12, 18, 20

54. **Recreation** On her bicycle, Anna circles the block every 4 minutes. Her brother, on his scooter, circles the block every 10 minutes. They start out together. In how many minutes will they meet again at the starting point?

55. Rod helped his mom plant a vegetable garden. Rod planted a row every 30 minutes, and his mom planted a row every 20 minutes. If they started together, how long will it be before they both finish a row at the same time?