

Practice Exercises:

In exercises 1 - 7 odd, find each sum using a number line.

1. $7 + (-3)$

3. $-2 + (-5)$

5. $-6 + 2$

7. $3 + (-3)$

In exercises 9 - 43, find each sum without the use of a number line.

9. $-7 + 0$

27. $-3.6 + 2.1$

13. $-30 + (-30)$

31. $\frac{9}{10} + (-\frac{3}{5})$

17. $-0.4 + (-0.9)$

35. $-\frac{3}{7} + (-\frac{4}{5})$

19. $-\frac{7}{10} + (-\frac{3}{10})$

39. $85 + (-15) + (-20) + 12$

23. $12 + (-8)$

43. $-45 + (-\frac{3}{7}) + 25 + (-\frac{4}{7})$

In exercises 47 - 59 odd, simplify each algebraic expression.

47. $-10x + 2x$

55. $-7b + 10 + (-b) + (-6)$

49. $25y + (-12y)$

57. $7x + (-5y) + (-9x) + 19y$

51. $-8a + (-15a)$

59. $8(4y + 3) + (-35y)$

53. $4y + (-13z) + (-10y) + 17z$

In exercises 61 and 63, find each sum.

61. $|-3 + (-5)| + |2 + (-6)|$

63. $-20 + [-|15 + (-25)|]$

In exercises 67 and 69, write each English phrase as an algebraic expression. Then simplify the expression. Let x represent the number.

67. The product of -6 and a number, which is then increased by the product of -13 and the number

69. The quotient of -20 and a number, increased by the quotient of 3 and the number

Applications:

The bar graph on page 64 shows that in 2000 and 2001, the U.S. government collected more in taxes than it spent, so there was a budget surplus for each of these years. By contrast, in 2002 through 2009, the government spent more than it collected, resulting in budget deficits.

79. a. In 2008, the government collected \$2521 billion and spent \$2931 billion. Find $2521 + (-2931)$ and determine the deficit, in billions of dollars, for 2008.
- b. In 2009, the government collected \$2700 billion and spent \$3107 billion. Find the deficit, in billions of dollars, for 2009.
- c. Use your answers from parts (a) and (b) to determine the combined deficit, in billions of dollars, for 2008 and 2009.