

**Example 3**  
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Write an equation to model each situation. Then solve.

19. **Measurement** A physician's assistant measures a child and finds that his height is  $41\frac{1}{2}$  in. At his last visit to the doctor's office, the child was  $38\frac{3}{4}$  in. tall. How much did the child grow?
20. **Sales Tax** Sales tax charged by the state of Virginia is 4.5%. This is 2.5% less than the sales tax charged by the state of Rhode Island. What does Rhode Island charge for sales tax?

**Example 4**  
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Solve each equation. Check your answer.

21.  $\frac{y}{5} = 100$

22.  $\frac{x}{2} = 98$

23.  $\frac{m}{3} = -6$

24.  $\frac{w}{4} = -80$

25.  $28 = \frac{p}{7}$

26.  $10 = \frac{a}{-2}$

27.  $-\frac{c}{7} = 35$

28.  $-\frac{r}{3} = -101$

**Example 5**  
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29.  $-\frac{2}{3}x = 6$

30.  $\frac{2}{3}c = -18$

31.  $\frac{2}{5}a = -4$

32.  $\frac{3}{7}y = 1$

33.  $\frac{7}{8}w = 14$

34.  $-\frac{2}{9}x = 10$

35.  $-\frac{1}{6}m = 12$

36.  $\frac{5}{11}n = 3$

37.  $\frac{5}{8}x = 8$

38.  $-\frac{12}{17}y = 3$

39.  $\frac{4}{7}m = 8$

40.  $\frac{3}{4}n = -\frac{3}{8}$

**Example 6**  
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41.  $5x = -75$

42.  $-7y = 28$

43.  $-8n = -64$

44.  $6p = -120$

45.  $-6 = -3a$

46.  $2 = -2m$

47.  $-4k = 52$

48.  $-3x = -48$

49.  $-4 = 7x$

50.  $9 = 11y$

51.  $-7m = 9$

52.  $9n = -5$

**Skills**

53. **Estimation** Use estimation to check whether 96.26 is a reasonable solution for the equation  $m - 62.74 = 159$ . Explain.
54. **Open-Ended** Write a word problem that you could solve using the equation  $15n = 120$ .

Solve each equation.

55.  $14 + t = 16.1$

56.  $\frac{2}{3}w = 12$

57.  $b + 6\frac{1}{8} = 5\frac{3}{4}$

58.  $9\frac{2}{3} = a + 19$

59.  $\frac{x}{6} = -10$

60.  $y - 3.7 = 6.93$

61.  $15.9 = r + 27.3$

62.  $-\frac{g}{7} = 2.5$

63.  $-3x = \frac{5}{6}$

64.  $\frac{x}{18} = 13.5$

65.  $m - 1.2 = -2.09$

66.  $0.9x = 11.7$

67.  $p + \frac{1}{4} = -3\frac{1}{2}$

68.  $6.1 + m = -11$

69.  $-1\frac{3}{4} = p - \frac{1}{2}$

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