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Practice

Does the number in brackets make each sentence a true statement?

1. $n + 7 = 10$ (3) **2.** $x - 5 = 0$ (5)
3. $3b = 18$ (15) **4.** $5u = 20$ (4)
5. $\frac{x}{5} = 2$ (15) **6.** $2w = 6$ (3)
7. $2z + 1 = 7$ (3) **8.** $3e - 2 = 10$ (4)

Solve each equation.

9. $x + 3 = 7$ **10.** $f + 3 = 4$
11. $m + 2 = 9$ **12.** $n + 1 = 6$
13. $y + 4 = 8$ **14.** $z + 8 = 12$

Solve each equation.

15. $x - 5 = 7$ **16.** $a - 3 = 7$
17. $z - 1 = 6$ **18.** $4 - n = 0$

Solve the following equations.

19. $3n = 6$ **20.** $2s = 10$ **21.** $6x = 24$
22. $5y = 20$ **23.** $10t = 30$ **24.** $7n = 35$

Solve each equation.

25. $\frac{x}{4} = 3$ **26.** $\frac{y}{2} = 4$ **27.** $\frac{c}{7} = 3$
28. $\frac{r}{2} = 8$ **29.** $\frac{m}{4} = 1$ **30.** $\frac{n}{3} = 6$

Solve the following equations.

31. $5 + x = 12$ **32.** $y + 7 = 13$
33. $\frac{m}{7} = 11$ **34.** $\frac{n}{5} = 15$
35. $8a = 32$ **36.** $12q = 60$

Solve these equations.

37. $2n + 7 = 15$ **38.** $3x - 4 = 14$
39. $4p + 2 = 22$ **40.** $2t - 9 = 11$
41. $3m + 5 = 26$ **42.** $6b + 8 = 56$

Find the correct value for each variable.

43. $x + 1.5 = 2.8$ **44.** $y - 3.2 = 1.2$
45. $z + 3.7 = 4.8$ **46.** $x + 4.2 = 6.5$

47. $2x = 4.6$ **48.** $3y = 6.3$
49. $5x = 7.25$ **50.** $10x = 65$

Problems and Applications

Write an equation in the form shown by replacing the ▲ and ■ with numbers. The solution for x is shown in brackets.

51. $x +$ ▲ $=$ ■ (5)
52. ▲ $+ x =$ ■ (3)
53. ▲$x =$ ■ (6)
54. $\frac{x}{▲} =$ ■ (4)
55. $x -$ ▲ $=$ ■ (11)

56. A copy shop charges 9¢/page for the first 225 pages and 3¢/page for additional pages. How many pages can you copy for $24.00?

57. Why are number sentences like $4n + 10 = 30$ called equations?

Work with a classmate and write an equation for the next 2 problems. Then, solve the equation.

58. The cost for a bus to cross the bridge is $5.00 for the bus and driver plus $1.25 for each passenger. Including the driver, how many can cross the bridge for $15.00?

59. A ride in a taxi costs $3.00 plus $1.25 for each kilometre driven. How far can you go if you have $28.00?

LOGIC POWER

What relation is a man to his mother's only brother's only nephew?