

**MATH
1010****Solving Linear Equations - Homework**

Solve the equation. Check your solutions.

1. $x - 7 = 15$

2. $1.2b - 4.2 = -10.2$

3. $-3(2y + 3) = -6y - 9$

4. $|4x + 2| = 10$

5. $\frac{2}{5}h - 2\frac{1}{5} = 3$

6. $3n = 27$

7. $2(7c - 5) = 14c$

8. $6k - 13 = 5k$

9. $\frac{1}{2}(a - 16) = -9$

10. $8g - 14g + 22 = 37$

11. $4(1 - 2d) = -8d - 4$

12. $\frac{2}{3}(v - 3) = \frac{1}{3}(v + 6)$

13. $9 - p = 11$

14. $\frac{y}{8} = 5$

15. $3(2x - 6) = 2(3x - 9)$

16. $5 - 4m = 17$

17. $2w + 7w - 28 = 26$

18. $|t + 5| + 3 = 12$

19. A movie theater sells tickets for \$4.50 and boxes of popcorn for \$2.50. You have \$12. How many boxes of popcorn can you buy if you buy one ticket at the theater?

The letters **a**, **b**, and **c** represent constants. Solve the equation for **x**.

20. $x + a = 4$

21. $bx = 10$

22. $3cx - cx = -6$

23. $2cx - 5a = 3a$

Solve the equation for the indicated variable.

24. $7xy = 21$; y

25. $6k + 8m = 20$; m

26. $\frac{bh}{2} = A$; h

27. $4p - 3q = 2d$; p

28. $\frac{1}{5}(z - v) = w$; z

29. $\frac{ad}{bc} = 1$; d

30. The volume of the rectangular prism is 10.8 cubic meters. Solve the volume equation for ℓ . Use the new formula to find the length of the prism.

