Algebra RH
Review for Exam (Unit 4 - Equations)

Vocabulary

equation solve formula independent/dependent variable(s)

What should I be able to do?

- Solve single step to multi step equations
- Solve equations with variables on both sides
- Solve equations by "clearing" fractions
- Solve equations by "clearing" decimals
- Solve absolute value equations
- Identify no solution/infinite solution equations
- Write a formula based on a given situation
- Solve literal equations

Practice Problems

Solve for x.

1. $7x - 13 = 15$

2. $\frac{x}{5} + 3 = -12$

3. $-\frac{5}{3}(x-5) = 50$

4. $18 + 4x = 6x + 12$

5. $\frac{3}{4}(24 - 8x) = 2(5x + 1)$

6. $8x - 4(-5x - 2) = 12x$

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

8. $\frac{x-3}{8} - \frac{x+2}{3} = \frac{5}{12}$

9. $\frac{x}{6} - 1 = \frac{x-20}{8}$

10. $-6x - 5 = -2(3x + 1) - 3$

11. $0.2(3x - 1) = 0.25(2x + 2)$

12. $3(x + 4) = 8x + 6 - 5x$

13. $|2x+4| = 10$

14. $3|x+1| - 2 = 7$

Solve for the indicated variable.

15. $A = s^2 + 2rs$; r

16. $ax + bx = c$; x

17. $A = P(l + rt)$; r

18. $s = vt + 16t^2$; v

19. Using the formula $F = \frac{9}{5}C + 32$, find the Fahrenheit temperature when its 40° *C*.

20. On Monday, the number of yards Jack ran was twice that of Wednesday's run. Tuesday's run was 100 yards more than Wednesday's run. If Jack ran a total of 5300 yards over the three days, how many yards did he run on Monday?

21. Examine the literal equation below that has been solved for x. For each step taken, identify the property.

$ax + b = c$

$ax = c - b$ _____

$x = \frac{c-b}{a}$ _____