

Name \_\_\_\_\_

Literal Equations

Homework #18A

Algebra 1R CC

**\*\* All Evens are Optional**

1 – 10. Solve each equation for  $x$  in terms of the other variables.

1.  $5x = b$

2.  $rx = s$

3.  $x + 5r = 7r$

4.  $4 + x = k$

5.  $3x - q = 5q$

6.  $dx - 5c = 3c$

7.  $m = 2(x + n)$

8.  $cx + c^2 = 5c^2 - 7cx$

9.  $9x - 24a = 6a + 4x$

10.  $8ax - 7a^2 = 19a^2 - 5ax$

11 – 16. Transform each given formula by solving for the indicated variable.

11. Solve for  $h$ :  $A = bh$

12. Solve for  $l$ :  $V = lwh$

13. Solve for  $g$ :  $s = \frac{1}{2}gt$

14. Solve for  $a$ :  $P = 2a + b$

15. Solve for  $C$ :  $F = \frac{9}{5}C + 32$

16. Solve for  $a$ :  $2S = n(a + l)$

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R1. What is the solution of  $-17 = -2n + 13 - 8n$ ?

R2. Simplify the following:  $-3xy(5x^2 - 8xy^3 + 10)$

R3. Is  $4x - 12$  an *algebraic expression* or an *algebraic equation*? How do you know?

R4. Which property of equality should you use to solve  $5x = 25$ ?

R5. What is the simplified form of  $6x + 7 - 5x^2 + 4x$ ?

R6. Solve for  $m$  in terms of  $d$ :  $8m - 6d = 10d$

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$$1. x = \frac{b}{5}$$

$$2. x = \frac{s}{r}$$

$$3. x = 2r$$

$$4. x = k - 4$$

$$5. x = 2q$$

$$6. x = \frac{8c}{d}$$

$$7. x = \frac{m}{2} - n$$

$$8. x = \frac{c}{2}$$

$$9. x = 6a$$

$$10. x = 2a$$

$$11. h = \frac{A}{b}$$

$$12. l = \frac{V}{wh}$$

$$13. g = \frac{2s}{t}$$

$$14. a = \frac{P - b}{2}$$

$$15. c = \frac{5}{9}(F - 32)$$

$$16. a = \frac{2s}{n} - l$$

$$R1. n = 3$$

$$R2. -15x^3y + 24x^2y^4 - 30xy$$

R3. Algebraic Expression

R4. Multiplicative  
property of equality

$$R5. -5x^2 + 10x + 7$$

$$R6. m = 2d$$