

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**PRACTICE: Solving for Missing Variable**

Rewrite each equation in terms of the indicated (variable).

1. $P = \frac{VRT}{IR}$ (T) $T = \frac{P}{IR}$	2. $P = 2(L + W)$ (W) $W = \frac{P-2L}{2}$ OR $\frac{P}{2} - L$
3. $y = 5x - 10$ (x) $5x = \frac{y+10}{5}$ OR $\frac{y}{5} + 2$	4. $2x - 3y = 9$ (y) $y = \frac{9-2x}{-3}$ OR $\frac{2}{3}x - 3$
5. $\frac{x+y}{-1} = 5$ (x) $x = 5 - y$	6. $y = mx + b$ (b) $b = y - mx$
7. $ax + by = c$ (y) $y = \frac{c-ax}{b}$	8. $V = LWH$ (L) $L = \frac{V}{WH}$
9. $ax + by = c$ (x) $x = \frac{c-by}{a}$	10. $2x - 3y = 8$ (x) $x = \frac{8+3y}{2}$
11. $P = 2L + 2W$ (W) $W = \frac{P-2L}{2}$	12. $S = 2\pi rh$ (h) $h = \frac{S}{2\pi r}$
13. $E = mc^2$ (m) $m = \frac{E}{c^2}$	14. $-20x - 5y = 30$ (y) $y = -4x + 6$
15. $A = \frac{bh}{2}$ (b) <b>Cross multiply</b> $b = \frac{2A}{h}$	16. $A = \frac{a+b+c}{3}$ (b) $b = 3A - a - c$

Review

17. Identify each for  $2x^2 - 3x + 8$

Term(s): = 3 of them  
 $2x^2, -3x, \& 8$

Coefficient(s):  
 $2 \& -3$

Constant(s):  
 $8$

18. Write an expression with 3 terms

$x^2 - 3x + 5$  (answers will vary)

Translate each:

19. 8 less than twice a number

switch order  
 $2x - 8$

20.  $\frac{x+8}{2}$

The sum of a number & 8 divided by 2.

21. Which word is NOT another word that means to divide?

A. Divide by

**B.** Difference

C. Half

D. Quotient

22. What is the first step to solve this equation?  $\frac{x+8}{2} = 5$

A. Subtract 8

B. Subtract 2

**C.** Multiply by 2

D. Multiply by 5

23. Solve  $\frac{x+8}{2} = 5$  **cross multiply**  $x+8 = 10$   $x = 2$

A.  $x = -6$

B.  $x = -5$

**C.**  $x = 2$

D.  $x = 18$

24. Solve  $2 = -4n - 10$   $-4n = 12$   $n = -3$

**A.**  $n = -3$

B.  $n = -2$

C.  $n = 2$

D.  $n = 3$

25. Solve  $22 - 2y = -6(y+1)$  **distribute**  $22 - 2y = -6y - 6$   $22 + 4y = -6$   $4y = -28$   $y = -7$

**A.**  $y = -7$

B.  $y = -4$

C.  $y = 4$

D.  $y = 7$