

Name: _____

Date: _____

PRACTICE: Solving for Missing Variable

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

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

Review

17. Identify each for $2x^2 - 3x + 8$ Term(s): $2x^2, -3x, \text{ and } 8$ Coefficient(s): $2 \text{ and } -3$ Constant(s): 8

18. Write an expression with 3 terms

Translate each:

19. 8 less than twice a number

$$2x - 8$$

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

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 $\frac{x+8}{2} = 5 \cdot 2$

$$\begin{array}{r} x+8=10 \\ -8 \quad -8 \\ \hline x=2 \end{array}$$

- A. $x = -6$ B. $x = -5$ C. **$x = 2$** D. $x = 18$

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

- A. $n = -3$ B. $n = -2$ C. $n = 2$ D. $n = 3$

25. Solve $22 - 2y = -6(y + 1)$

$$\begin{array}{r} 22 + 4y = -6 \\ -22 \quad -22 \\ \hline 4y = -28 \\ \frac{4y}{4} = \frac{-28}{4} \end{array}$$

- A. **$y = -7$** B. $y = -4$ C. $y = 4$ D. $y = 7$