DIGITAL

NAME _____   **DATE** _____

Module 3   Solving Linear Equations
             of One Variable
Lesson 6   Rewriting Formulas

**independent
practice**

Rearrange each formula to isolate the variable indicated.

1. $A = ph$ for p

_____

2. $A = ph$ for h

_____

3. $A + B + C = 180$ for B

_____

4. $A + B + C = 180$ for A

_____

5. $x + y = 90$ for x

_____

6. $x + y = 180$ for y

_____

7. $M = \frac{(x + y)}{2}$ for x

_____

8. $M = \frac{(x + y)}{2}$ for y

_____

9. $d = 24h$ for h

_____

10. $A = \frac{1}{2}mn$ for m

_____

11. $S = 2\pi r^2 + 2\pi rh$ for h

_____

12. $E = mc^2$ for m

_____

13. $p = md$ for d

_____

14. $h = \frac{s\sqrt{3}}{2}$ for s

_____

15. $V = \frac{Ah}{3}$ for A

_____

16. $V = \frac{Ah}{3}$ for h

_____

17. $s = r\theta$ for r

_____

18. $s = r\theta$ for θ

_____

19. $A = \frac{\theta r^2}{2}$ for θ

_____

20. $a^2 + b^2 = c^2$ for a

_____

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Journal

1. Why is it useful to rewrite equations? Give an example to support your conclusion.
2. Can width always be found by the formula $w = \frac{A}{l}$. Why or why not?
3. How are perimeter and area alike and different?
4. Why is it necessary to be able to convert degrees Fahrenheit to degrees Celsius and vice versa?
5. Using the formula $d = rt$, explain how you would find time if you knew the distance and the rate.

Cumulative Review

Simplify.

1. $7.25 - 9.3$ _____

2. $5\frac{2}{3} + 7\frac{1}{3}$ _____

3. $-\frac{5}{11} + \left(-\frac{3}{11}\right)$ _____

4. $17 - 3\frac{4}{5}$ _____

5. $\sqrt{(5^2 - 4 \cdot 1 \cdot 3)}$ _____

6. $4^3 - 3^2$ _____

Supply the missing properties in the following algebraic proof.

$2x + 5 = 68 - x$ 7. _____

$2x + 5 + x = 68 - x + x$ 8. _____

$3x + 5 = 68$

$3x + 5 - 5 = 68 - 5$ 9. _____

$3x = 63$

$\frac{3x}{3} = \frac{63}{3}$ 10. _____

$x = 21$

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