

NAME: _____

UNIT 1 • RELATIONSHIPS BETWEEN QUANTITIES

Lesson 5: Rearranging Formulas

Practice 1.5.1: Rearranging Equations and Formulas

For problems 1–4, solve each equation for y .

1. $9y + 18 = 27x$

2. $6y + 24x = 66$

3. $10x - 77 = 7y$

4. $44 - 4y = 20x$

Read each scenario and solve for the given variable.

5. To convert degrees Celsius to Kelvin, the formula $K = C + 273.15$ is used. Solve this formula for C .

6. The formula $C = 2\pi r$ is used to calculate the circumference of a circle. Solve this formula for r .

7. The formula $V = lwh$ is used to calculate the volume of a prism. Solve this formula for w .

8. The formula $S = 2\pi r^2 + 2\pi rh$ is used to find the surface area of a cylinder. Solve this formula for h .

9. The formula for converting degrees Celsius to degrees Fahrenheit is $F = \frac{9}{5}C + 32$. Solve this formula for C .

10. The formula for calculating the volume of a cone is $V = \frac{1}{3}\pi r^2 h$. Solve this formula for h .