UNIT 2 • REASONING WITH LINEAR EQUATIONS AND INEQUALITIES
Lesson 5: Rearranging Formulas

Practice 2.5.1: Rearranging Formulas   A

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

1. $9y + 18 = 27x$

2. $6y + 24x = 66$

3. $10x - 77 = 7y$

4. $44 - 4y = 20x$

For problems 5–10, 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 rectangular 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 right circular cylinder. Solve this formula for h.

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

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