

L 1.4

3, 5, 6, 8, 9, 13, 14-19

3a. $A = \frac{1}{2}(bh)$

b. $2 \cdot A = 2 \cdot \frac{1}{2}(bh)$

$$\frac{2A}{h} = \frac{bh}{h}$$

$$\frac{2A}{h} = b$$

c. $b = \frac{2A}{h}$

$$b = \frac{2 \cdot 36}{6} = 12 \text{ mm}$$

5. $\frac{1}{3}x + y = 4$

$$-\frac{1}{3}x \quad -\frac{1}{3}x$$

$$y = -\frac{1}{3}x + 4$$

6. $3x + \frac{1}{5}y = 7$

$$-3x \quad -3x$$

$$\left(\frac{5}{1}\right) \frac{1}{5}y = (-3x + 7) \frac{5}{1}$$

$$y = -15x + 35$$

8. $\pi = 7x - 2y$

$$-7x \quad -7x$$

$$\frac{-7x + \pi}{-2} = \frac{-2y}{-2}$$

$$\frac{7}{2}x - \frac{\pi}{2} = y \quad \text{or} \quad y = \frac{7}{2}x - \frac{1}{2}\pi$$

$$9. (4.2x - 1.4y = 2.1) \cdot 10$$

$$42x - 14y = 21$$

$$\begin{array}{r} -42x \\ -42x \end{array}$$

$$\frac{-14y}{-14} = \frac{-42x + 21}{-14}$$

$$y = 3x - 1.5$$

$$13. a. \frac{I}{Pr} = \frac{Prt}{Pr}$$

$$t = \frac{I}{Pr}$$

$$b. t = \frac{75}{500(0.05)}$$

$$t = \frac{75}{25}$$

$$t = 3 \text{ years}$$

$$14. \frac{d}{r} = \frac{rt}{r}$$

$$t = \frac{d}{r}$$

$$15. \frac{e}{c^2} = \frac{mc^2}{c^2}$$

$$m = \frac{e}{c^2}$$

$$16. \begin{array}{r} R - C = P \\ -R \quad -R \end{array}$$

$$\frac{-C}{-1} = \frac{P-R}{-1}$$

$$C = -P + R$$

or

$$C = R - P$$

$$17. \quad A = \frac{1}{2} \pi w^2 + 2lw$$

$$\frac{-\frac{1}{2} \pi w^2 - \frac{1}{2} \pi w^2}{2w} = \frac{2lw}{2w}$$

$$l = \frac{A - \frac{1}{2} \pi w^2}{2w}$$

$$18. \quad h = B = 3 \frac{V}{h} \cdot h$$

$$\frac{Bh}{3} = \frac{3V}{3}$$

$$V = \frac{Bh}{3}$$

$$19. \quad g = \frac{1}{6} (w + 40)$$

$$\frac{6}{1} \cdot g = \frac{6}{1} \cdot \frac{1}{6} (w + 40)$$

$$6g = w + 40$$

$$\frac{-40}{-40} \quad \frac{-40}{-40}$$

$$6g - 40 = w$$

$$w = 6g - 40$$