

NAME \_\_\_\_\_

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



guided  
practice

**Set 1**

1. Solve  $A = bh$  for  $b$ .

$$\begin{aligned} A &= bh \\ \frac{A}{h} &= \frac{bh}{h} \\ \frac{A}{h} &= b \end{aligned}$$

2. Solve  $A = \frac{1}{2}bh$  for  $h$ .

$$\begin{aligned} A &= \frac{1}{2}bh \\ 2A &= 2\left(\frac{1}{2}bh\right) \\ 2A &= bh \\ \frac{2A}{b} &= \frac{bh}{b} \\ \frac{2A}{b} &= h \end{aligned}$$

3. Solve  $V = \pi r^2 h$  for  $h$ .

$$\begin{aligned} V &= \pi r^2 h \\ \frac{V}{\pi r^2} &= \frac{\pi r^2 h}{\pi r^2} \\ \frac{V}{\pi r^2} &= h \end{aligned}$$

**Set 2**

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

$$\begin{aligned} S &= 2\pi rh + 2\pi r^2 \\ S - 2\pi r^2 &= 2\pi rh \\ \frac{S - 2\pi r^2}{2\pi r} &= h \end{aligned}$$

3. Solve  $z = \frac{x - \mu}{\sigma}$  for  $x$ .

$$\begin{aligned} z &= \frac{x - \mu}{\sigma} \\ \sigma z &= x - \mu \\ \sigma z + \mu &= x \end{aligned}$$

2. Solve  $A = P + Prt$  for  $r$ .

$$\begin{aligned} A &= P + Prt \\ A - P &= Prt \\ \frac{A - P}{Pt} &= \frac{Prt}{Pt} \\ \frac{A - P}{Pt} &= r \end{aligned}$$

4. Solve  $S = \frac{a - lr}{1 - r}$  for  $a$ .

$$\begin{aligned} S &= \frac{a - lr}{1 - r} \\ S(1 - r) &= (1 - r)\left(\frac{a - lr}{1 - r}\right) \\ S(1 - r) &= a - lr \\ S(1 - r) + lr &= a \end{aligned}$$

