

# 1.5

## Practice

$$\frac{-3/4}{4} = \frac{k}{4}$$

$$\frac{-2}{-3} = \frac{2}{4k}$$

$$-1 = 4k + 2$$

with **Calc Chat** and **Calc View**

Solve the equation. (See Examples 1 and 2.)

1.  $m - 4 = 2m$   $-4 = m$

4.  $-24 - 8p = 4p$

$-2 = p$

$$\begin{array}{r} +8p +8p \\ \hline -24 = 12p \\ \hline 12 \quad 12 \\ \hline -2 = p \end{array}$$

7. Write and solve an equation to find the number of minutes you must ride to have the same cost for each of the electric scooter rentals.

2.  $3k - 1 = 7k + 2$

5.  $2(4z - 1) = 3(z + 2)$

$$\begin{array}{r} 8z - 2 = 3z + 6 \\ -3z \quad -3z \\ \hline 5z - 2 = 6 \\ +2 \quad +2 \\ \hline 5z = 8 \\ z = 8/5 \end{array}$$

3.  $12(2w - 3) = 6w$

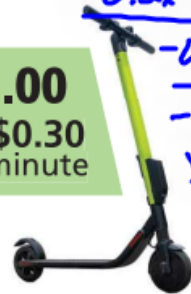
6.  $0.1x = 0.2(x + 2)$

$$\begin{array}{r} 0.1x = 0.2x + 0.4 \\ -0.2x \quad -0.2x \\ \hline -0.1x = 0.4 \\ \hline -0.1 \quad -0.1 \\ \hline x = -4 \end{array}$$

$$\begin{array}{r} 24w - 36 = 6w \\ -24w \quad -24w \\ \hline -36 = -18w \\ \hline -18 \quad -18 \\ \hline 2 = w \end{array}$$

5/2 = 10  
7 = 10

**\$1.00**  
plus **\$0.30**  
per minute



**\$1.50**  
plus **\$0.25**  
per minute



7. Write and solve an equation to find the number of minutes you must ride to have the same cost for each of the electric scooter rentals.

$$1.00 + .30x = 1.50 + .25x$$

$$1.00 + .30(x)$$

$$1.00 + 2.70$$

$$3.70$$

Solve the equation. (See Examples 3 and 4.)

8.  $3x + 15 = 3(x + 5)$

9.  $3x - 1 = 1 - 3x$

10.  $5.5 - x = -4.5 - x$

**\$1.00**  
plus **\$0.30**  
per minute



**\$1.50**  
plus **\$0.25**  
per minute



$$1.50 + .25(x)$$

$$1.50 + 2.25$$

$$3.75$$

**Solve the equation.** (See Examples 3 and 4.)

8.  $3x + 15 = 3(x + 5)$     9.  $3x - 1 = 1 - 3x$

*Many sol*  
 $3x + 15 = 3x + 15$

$6x - 2 = x = 1/3$

11.  $-3(2x - 3) = -6x + 9$     12.  $2x + 4 = -(-7x + 6)$

*many sol*  
 $-6x + 9 = -6x + 9$

$2x + 4 = 7x - 6$

$10 = 5x$

$2 = x$

14. **YOU BE THE TEACHER** Your friend solves the equation shown. Is your friend correct? Explain your reasoning.

10.  $5.5 - x = -4.5 - x$

*No sol*

13.  $10x - \frac{8}{3} - 4x = 6x$

$6x - \frac{8}{3} = 6x$  *no sol*

$$\begin{aligned} -4(2n - 3) &= 12 - 8n \\ -8n + 12 &= 12 - 8n \end{aligned}$$

14. **YOU BE THE TEACHER** Your friend solves the equation shown. Is your friend correct? Explain your reasoning.

$$\begin{aligned} -4(2n - 3) &= 12 - 8n \\ -8n + 12 &= 12 - 8n \\ -8n &= -8n \\ 0 &= 0 \end{aligned}$$

The solution is  $n = 0$ .

*Solution should be many sol.*

15. **OPEN-ENDED** Write an equation with variables on both sides that has no solution. Explain why it has no solution.

16. **CONNECTING TO REAL LIFE** Your neighbor subscribes to the satellite provider