

**8.EE.C.7b ADDITIONAL PRACTICE****Answer Key**

For questions 1-8, solve for the variable.

**1)**  $9 = \frac{x+5}{2}$

$x = 13$

**2)**  $\frac{2}{3}a = \frac{3}{4}$

$a = \frac{9}{8}$

**3)**  $\frac{1}{4}b + \frac{1}{2} = 1$

$b = 2$

**4)**  $\frac{1}{3}k - \frac{1}{2}k = 5$

$k = -30$

**5)**  $4(3x - 1) = 2(x + 3)$

$x = 1$

**6)**  $\frac{2}{5}(5x - 15) = 8$

$x = 7$

**7)**  $2(y + 7) \geq \frac{6y}{5} + 6$

$y \geq -10$

**8)**  $\frac{3x+8}{4} < -10$

$x < -16$

**8.EE.C.7b ADDITIONAL PRACTICE (cont'd)** **Answer Key**

- 9) At work one weekend, Lance earned a \$50 bonus and worked at his usual rate of \$13.50 an hour as a lifeguard over the summer. If he earned a total of \$272.75 that weekend, how many hours did he work?

Lance worked 16.5 hours.

- 10) Joanna has \$1.60 in nickels and dimes. If she has 4 more dimes than she does nickels, write an equation that can be used to determine how many nickels and dimes she has. Then, use the equation to determine the number of nickels and dimes.

$$0.10(n + 4) + 0.05(n) = 1.60$$

8 nickels and 12 dimes

- 11) Matt's work to solve the inequality is shown below. Identify the errors that he made. Then, solve the inequality to identify the correct solution.

$$\begin{aligned}5 - \frac{1}{3}(3x - 6) &\geq 0 \\ -\frac{1}{3}(3x - 6) &\geq -5 \\ -1x - 6 &\geq -5 \\ -1x &\geq 1 \\ x &\geq -1\end{aligned}$$

Matt did not distribute the  $-\frac{1}{3}$  to the  $-6$  in the parentheses, and he did not flip the inequality when dividing by  $-1$ .

$$x \leq 7$$