

Sections 8.1 & 8.2 Quiz Review

Solve each equation.

1.) $1.3c = -65$

$\div 1.3 \div 1.3$

$C = -65 \div 1.3$

$C = -50$

$$\begin{array}{r} 50. \\ 1.3 \overline{) 650.} \\ \underline{-650} \\ 00 \\ \underline{-00} \\ 0 \end{array}$$

2.) $-4.2 = -7m$

$\div -7 \div -7$

$-4.2 \div -7 = m$

$m = 0.6$

$$\begin{array}{r} 0.6 \\ 7 \overline{) 42} \\ \underline{-42} \\ 0 \end{array}$$

3.) $0.8p = 9.6$

$\div 0.8 \div 0.8$

$p = 9.6 \div 0.8$

$p = 12$

$$\begin{array}{r} 12. \\ 0.8 \overline{) 96.} \\ \underline{-80} \\ 16 \\ \underline{-16} \\ 0 \end{array}$$

Solve each equation.

4.) $0.6h = 1.8$

$\div 0.6 \div 0.6$

$h = 1.8 \div 0.6$

$h = 3$

$$\begin{array}{r} 3. \\ 0.6 \overline{) 1.8} \\ \underline{-1.8} \\ 0 \end{array}$$

5.) $-3.4 = 0.4j$

$\div 0.4 \div 0.4$

$-3.4 \div 0.4 = j$

$j = -8.5$

$$\begin{array}{r} 8.5 \\ 0.4 \overline{) 34.0} \\ \underline{-32} \\ 20 \\ \underline{-20} \\ 0 \end{array}$$

6.) $\frac{1}{12} n = 12$ $\cdot \frac{12}{1}$

$n = 12 \cdot 12$

$n = 144$

Solve each equation.

$$7.) 18 = -\frac{1}{2}t$$

$$18 \cdot -2 = t$$

$$\boxed{-36 = t}$$

$$8.) -\frac{3}{4}k = \frac{2}{3}$$

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

$$\boxed{k = \frac{8}{-9}}$$

$$9.) \frac{1}{25} = \frac{3}{5}m$$

$$m = \frac{1}{25} \cdot \frac{5}{3}$$

$$\boxed{m = \frac{1}{15}}$$

10.) A forest preserve rents canoes for $\$22.50$ per hour. Corey has $\$90$ to spend. Write and solve an equation to find how many hours he can rent a canoe.

Let C be the hours he can rent the canoe.

$$22.50C = 90$$

$$C = 90 \div 22.5$$

$$\begin{array}{r} 4. \\ 22.5 \overline{) 90.0} \\ \underline{-90.0} \\ 0 \end{array}$$

$$C = \boxed{4 \text{ hours}}$$

Solve each equation.

$$11.) \boxed{4p} + 9 = 25$$

$$\quad \quad \quad -9 \quad -9$$

$$\frac{4p}{4} = \frac{16}{4}$$

$$\boxed{p = 4}$$

$$12.) 17 = \boxed{7x} - 4$$

$$\quad \quad \quad +4 \quad \quad +4$$

$$\frac{21}{7} = \frac{7x}{7}$$

$$\boxed{3 = x}$$

$$13.) \boxed{\frac{1}{4}p} - 6 = -8$$

$$\quad \quad \quad +6 \quad +6$$

$$\frac{4}{1} \cdot \frac{1}{4}p = \frac{-2 \cdot 4}{1}$$

$$p = -2 \cdot 4$$

$$\boxed{p = -8}$$

Solve each equation.

$$14.) \boxed{\frac{1}{2}g} + 6 = 4$$

$$\quad \quad \quad -6 \quad -6$$

$$\frac{2}{1} \cdot \frac{1}{2}g = \frac{-2 \cdot 2}{1}$$

$$g = -2 \cdot 2$$

$$\boxed{g = -4}$$

$$15.) -7 \boxed{-8d} = 17$$

$$\quad \quad \quad +7 \quad \quad +7$$

$$\frac{-8d}{-8} = \frac{24}{-8}$$

$$\boxed{d = -3}$$

$$16.) 12 \boxed{-m} = -7$$

$$\quad \quad \quad -12 \quad -12$$

$$\frac{-1m}{-1} = \frac{-19}{-1}$$

$$\boxed{m = 19}$$

Solve each equation.

17.) $-4 = 8y - 9y + 6$

$$-4 = -1y + 6$$

$$\begin{array}{r} -4 \\ -6 \\ \hline -10 \end{array} = \begin{array}{r} -1y \\ -6 \\ \hline -1y - 6 \end{array}$$

$$\frac{-10}{-1} = \frac{-1y - 6}{-1}$$

$$y = 10$$

18.) $7.8 = 3 + 0.1n + 0.7n$

$$7.8 = 3 + 0.8n$$

$$\begin{array}{r} 7.8 \\ -3.0 \\ \hline 4.8 \end{array} = \begin{array}{r} 3 \\ -3 \\ \hline 0.8n \end{array}$$

$$\frac{4.8}{0.8} = \frac{0.8n}{0.8}$$

$$n = 6$$

$$\begin{array}{r} 6 \cdot 0.8 \overline{) 4.8} \\ \underline{4.8} \\ 0 \end{array}$$

19.) $5m + 4 - 7m = 10$

$$-2m + 4 = 10$$

$$\begin{array}{r} -2m + 4 \\ -4 \\ \hline -2m \end{array} = \begin{array}{r} 10 \\ -4 \\ \hline 6 \end{array}$$

$$\frac{-2m}{-2} = \frac{6}{-2}$$

$$m = -3$$

20.) $\frac{1}{3}p + 6 - \frac{2}{3}p = 0$

$$-\frac{1}{3}p + 6 = 0$$

$$\begin{array}{r} -\frac{1}{3}p + 6 \\ -6 \\ \hline -\frac{1}{3}p \end{array} = \begin{array}{r} 0 \\ -6 \\ \hline -6 \end{array}$$

$$\frac{3}{-1} \cdot \frac{-\frac{1}{3}p}{-1} = \frac{-6 \cdot 3}{-1}$$

$$p = -6 \cdot -3$$

$$p = 18$$

21.) Alex went to the movies with several friends. Student tickets cost \$8.50 each, and together they spent \$25 on snacks. The total amount paid was \$59. Write and solve an equation to find the number of people that went to the movies.

Let m be the number of people at the movies.

$$8.50m + 25 = 59$$

$$\begin{array}{r} 8.50m + 25 \\ -25 \\ \hline 8.50m \end{array} = \begin{array}{r} 59 \\ -25 \\ \hline 34 \end{array}$$

$$\frac{8.5m}{8.5} = \frac{34}{8.5}$$

$$\begin{array}{r} 4 \cdot 8.5 \overline{) 34.0} \\ \underline{34.0} \\ 0 \end{array}$$

$$m = 4 \text{ people}$$