

Mid Chapter Quiz

$$1) \begin{array}{r} 38 = 2a + 54 \\ -54 \quad -54 \\ \hline \end{array}$$

$$\begin{array}{r} -16 = 2a \\ \hline 2 \quad 2 \\ \hline -8 = a \end{array}$$

$$2) \begin{array}{r} t + 18.1 = 23.9 \\ -18.1 \quad -18.1 \\ \hline t = 5.8 \end{array}$$

$$3) \begin{array}{r} 18.9 = 2.1x \\ \hline 2.1 \quad 2.1 \\ \hline 9 = x \end{array}$$

$$4) \begin{array}{r} \frac{1}{2}(b-3) = \frac{5}{2} \\ \hline \frac{1}{2}(b-3) = \frac{5}{2} \cdot 2 \\ \hline \end{array}$$

$$\begin{array}{r} b-3 = 5 \\ +3 \quad +3 \\ \hline b = 8 \end{array}$$

$$5) \begin{array}{r} 9 - 3r = 14 \\ -9 \quad -9 \\ \hline \end{array}$$

$$\begin{array}{r} -3r = 5 \\ \hline -3 \quad -3 \\ \hline \end{array}$$

$$r = -\frac{5}{3}$$

$$r = -1\frac{2}{3}$$

$$6) \begin{array}{r} 3 = \frac{1}{2}b + 11 \\ -11 \quad -11 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \cdot -8 = \frac{1}{2}b \cdot \frac{2}{1} \\ \hline -16 = b \end{array}$$

$$7) \begin{array}{r} 8(h-1) = 6h + 4 + 2h \\ 8h - 8 = 6h + 4 + 2h \\ 8h - 8 = 8h + 4 \\ -8h \quad -8h \\ \hline -8 = 4 \end{array}$$

no solution

$$-8 \text{ will never} \\ = 4$$

$$8) \frac{1}{7}(14-7p) - 2 = -2\left(\frac{1}{2}p+3\right) + 6$$

$$2 \frac{14}{7} - \frac{7p}{7} - 2 = -2\left(\frac{1}{2}p\right) - 6 + 6$$

$$2 - p - 2 = -p - 6 + 6$$

$$-p = -p$$

identity

all real numbers
are solutions

infinite solution

$$9) \frac{c+3}{5} = 15$$

$$5 \cdot \frac{c+3}{5} = 15 \cdot 5$$

$$c+3 = 75$$

$$\begin{array}{r} -3 \\ -3 \end{array}$$

$$c = 72$$

$$13.) A = \frac{1}{2}bh$$

$$\text{base} = 7$$

$$\text{Area} = 28$$

$$2 \cdot 28 = \frac{1}{2} \cdot 7 \cdot h \cdot 2$$

$$\frac{56}{7} = \frac{7h}{7}$$

$$8 = h$$

$$10) \frac{2}{3}(x-4) = \frac{1}{3}(2x-6)$$

$$3 \cdot \frac{2}{3}(x-4) = \frac{1}{3}(2x-6) \cdot 3$$

$$2x - 8 = 2x - 6$$

$$\begin{array}{r} -2x \\ -2x \end{array}$$

$$-8 = -6$$

no solution

-8 will never

equal -6

$$11) \frac{1.7m}{1.7} = \frac{10.2}{1.7}$$

$$m = 6$$

$$14) m = \frac{2500}{.50}$$

$$m = 5000$$

16. $t = \#$ of tickets ordered

$$25t + 3t = 252$$

$$\frac{28t}{28} = \frac{252}{28}$$

$$t = 9$$

9 tickets

$$12) 2 + \frac{1}{3}t = 1 + \frac{1}{4}t$$

$$12 \left(2 + \frac{1}{3}t \right) = \left(1 + \frac{1}{4}t \right) 12$$

$$24 + 4t = 12 + 3t$$

$$\begin{array}{r} -3t \\ -3t \end{array}$$

$$24 + t = 12$$

$$\begin{array}{r} -24 \\ -24 \end{array}$$

$$t = -12$$