

Name: Key Period: _____
 Assignment: Practice 3-4

Digits work earns you credit, not just answers.

1) $2z + 7 < z + 10$
 $\begin{array}{r} -z \quad -z \\ 2z + 7 < z + 10 \\ -z \quad -z \\ \hline z + 7 < 10 \\ -7 \quad -7 \\ \hline z < 3 \end{array}$
 $z < 3$

4) $n + 2(3n + 4) \geq 1$
 $n + 6n + 8 \geq 1$
 $7n + 8 \geq 1$
 $\begin{array}{r} -8 \quad -8 \\ 7n + 8 \geq 1 \\ -8 \quad -8 \\ \hline 7n \geq -7 \\ \hline n \geq -1 \end{array}$
 $n \geq -1$

7) $2(3 + 3g) \geq 2g + 14$
 $6 + 6g \geq 2g + 14$
 $\begin{array}{r} -2g \quad -2g \\ 6 + 6g \geq 2g + 14 \\ -2g \quad -2g \\ \hline 4 + 4g \geq 14 \\ -4 \quad -4 \\ \hline 4g \geq 10 \\ \hline g \geq 2.5 \end{array}$
 $g \geq 2.5$

10) $8m - 8 \geq 12 + 4m$
 $\begin{array}{r} -4m \quad -4m \\ 8m - 8 \geq 12 + 4m \\ -4m \quad -4m \\ \hline 4m - 8 \geq 12 \\ +8 \quad +8 \\ \hline 4m \geq 20 \\ \hline m \geq 5 \end{array}$
 $m \geq 5$

13) $-5x + 12 < -18$
 $\begin{array}{r} -12 \quad -12 \\ -5x + 12 < -18 \\ -12 \quad -12 \\ \hline -5x < -30 \\ \hline x > 6 \end{array}$
 $x > 6$

16) $2(c - 4) \leq 10 - c$
 $2c - 8 \leq 10 - c$
 $\begin{array}{r} +c \quad +c \\ 2c - 8 \leq 10 - c \\ +c \quad +c \\ \hline 3c - 8 \leq 10 \\ +8 \quad +8 \\ \hline 3c \leq 18 \\ \hline c \leq 6 \end{array}$
 $c \leq 6$

19) $35b + 150 \leq 850$
 $\begin{array}{r} -150 \quad -150 \\ 35b + 150 \leq 850 \\ -150 \quad -150 \\ \hline 35b \leq 700 \\ \hline b \leq 20 \end{array}$
 $b \leq 20$

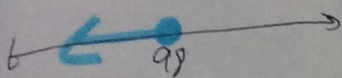
20) $5(6) + 4t \leq 62$
 $30 + 4t \leq 62$
 $\begin{array}{r} -30 \quad -30 \\ 30 + 4t \leq 62 \\ -30 \quad -30 \\ \hline 4t \leq 32 \\ \hline t \leq 8 \end{array}$
 $t \leq 8$

21) $5 + 1.25r \leq 15$
 $\begin{array}{r} -5 \quad -5 \\ 5 + 1.25r \leq 15 \\ -5 \quad -5 \\ \hline 1.25r \leq 10 \\ \hline r \leq 8 \end{array}$
 $r \leq 8$

$$\begin{array}{r} 10) 22) \quad 19.50 + 0.25m \leq 44 \\ \underline{-19.50} \quad \underline{-19.50} \end{array}$$

$$\frac{0.25m}{0.25} \leq \frac{24.5}{0.25}$$

$$m \leq 98$$



11) 23)

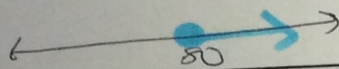
$$3s + 5a \geq 1000$$

$$3(200) + 5a \geq 1000$$

$$\begin{array}{r} 600 + 5a \geq 1000 \\ \underline{-600} \quad \underline{-600} \end{array}$$

$$\frac{5a}{5} \geq \frac{400}{5}$$

$$a \geq 80$$



12) 24)

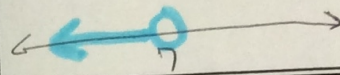
$$-18 < 2(12 - 3b)$$

$$-18 < 24 - 6b$$

$$\begin{array}{r} -24 \quad -24 \\ \underline{-42} < \underline{-6b} \\ -6 \quad -6 \end{array}$$

$$7 > b$$

$$b < 7$$



13) 27)

$$2(5t - 25) + 5t < -80$$

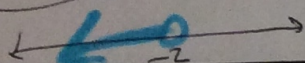
$$10t - 50 + 5t < -80$$

$$15t - 50 < -80$$

$$\begin{array}{r} +50 \quad +50 \end{array}$$

$$\frac{15t}{15} < \frac{-30}{15}$$

$$t < -2$$



14) 30)

$$7(2z + 3) > 35$$

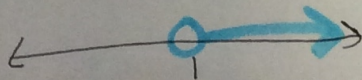
$$14z + 21 > 35$$

$$\begin{array}{r} -21 \quad -21 \end{array}$$

$$14z > 14$$

$$\frac{14z}{14} > \frac{14}{14}$$

$$z > 1$$



15) 33)

$$8(3f - 6) < -24$$

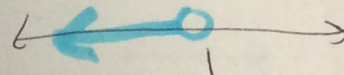
$$24f - 48 < -24$$

$$\begin{array}{r} +48 \quad +48 \end{array}$$

$$24f < 24$$

$$\frac{24f}{24} < \frac{24}{24}$$

$$f < 1$$



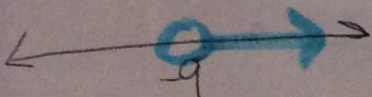
16) 36)

$$\frac{1}{2}(2g + 4) > -7$$

$$g + 2 > -7$$

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

$$g > -9$$



17) 39)

$$4(2d + 1) > 28$$

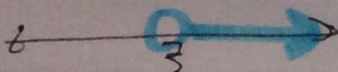
$$8d + 4 > 28$$

$$\begin{array}{r} -4 \quad -4 \end{array}$$

$$8d > 24$$

$$\frac{8d}{8} > \frac{24}{8}$$

$$d > 3$$



18)