

Warm up:

Solve.

$$\begin{array}{r} 1\frac{4}{5} - 6 \\ 9\frac{9}{5} - 16 \\ 9\frac{9}{5} - 16 \\ 1\frac{4}{5} - 6 \\ 9\frac{9}{5} - 16 \\ 9\frac{9}{5} - 16 \end{array}$$

$$1\frac{4}{5} < 6 - \frac{2}{3}a$$

$$-6 \quad -6$$

$$-\frac{2}{3} \left(-\frac{1}{5} \right) < \left(-\frac{2}{3}a \right) \left(-\frac{3}{2} \right)$$

$$\frac{6}{10} > a$$

$$6\frac{3}{10} > a$$

$$a < 6\frac{3}{10}$$



HW Solutions

$$\textcircled{2} \quad \begin{array}{r} 35 + 8t \leq 80 \\ -35 \qquad \qquad -35 \\ \hline \end{array}$$

$$\begin{array}{r} 8t \leq 45 \\ \frac{8t}{8} \leq \frac{45}{8} \\ \hline t \leq 5.625 \end{array}$$

at most 5 T-shirts

$$\begin{array}{r} 5.625 \\ 8 \overline{)45.000} \\ \underline{-40.0} \\ 50 \\ \underline{-48.0} \\ 20 \\ \underline{-16.0} \\ 40 \\ \underline{-40.0} \\ 0 \end{array}$$

$$\begin{array}{r} \textcircled{4} \quad 35 + 0.15m < 89 \\ - 35 \qquad \qquad - 35 \\ \hline 0.15m < 54 \\ \underline{0.15} \quad \underline{0.15} \\ m < 360 \end{array}$$

less than 360 mi

①

$$\begin{array}{r} a + 720 > 5000 \\ - 720 \quad - 720 \\ \hline \end{array}$$

$$a > 4280$$

more than \$4280

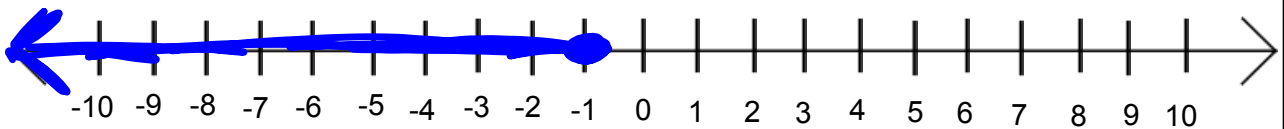
$$\begin{array}{r}
 \textcircled{3} \quad 2400 + 0.05s \geq 4000 \\
 \underline{-2400} \qquad \qquad \underline{-2400} \\
 32000 \qquad 0.05s \geq 1600 \\
 5 \overline{)160000} \quad \underline{0.05} \quad \underline{0.05} \\
 \underline{-150} \qquad \qquad \underline{0.05} \\
 10 \qquad \qquad \qquad s \geq 32000 \\
 \underline{-10} \\
 0
 \end{array}$$

at least \$32000

Showdown

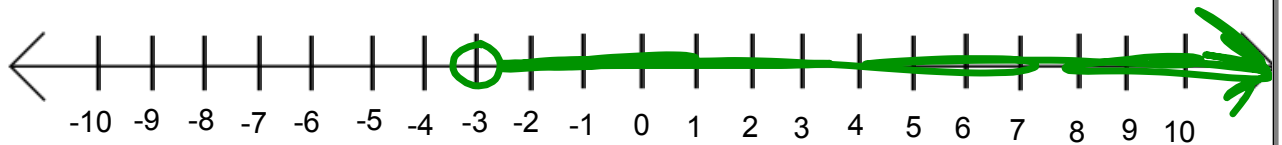
Solve and graph.

$$\begin{array}{l} 9 \leq -2x + 7 \\ \xrightarrow{-7} \quad \quad \quad \xrightarrow{-7} \\ \hline -2 \leq -2x \\ \xrightarrow{-2} \quad \quad \quad \xrightarrow{-2} \\ -1 \geq x \end{array} \quad \textcircled{x \leq -1}$$



Solve and graph.

$$\begin{array}{r} 2x - 9 > -15 \\ \quad \downarrow +9 \quad \downarrow +9 \\ \hline 2x > -6 \\ \frac{2x}{2} > \frac{-6}{2} \\ \hline x > -3 \end{array}$$



Write an inequality to solve the problem.

Chris bought a rotisserie chicken for \$8. Bags of frozen vegetables for \$3. How many bags of frozen vegetables can he buy if he has \$29?

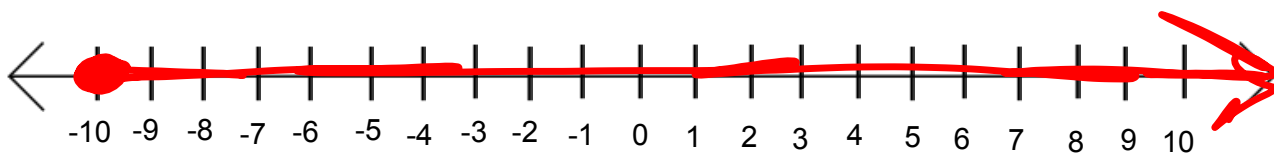
$$\begin{array}{r} \$ + 3v \leq 29 \\ -8 \qquad \qquad -8 \\ \hline 3v \leq 21 \\ \frac{3v}{3} \leq \frac{21}{3} \\ v \leq 7 \end{array}$$

at most
7 bags

Solve and graph.

$$4 \geq -1 - \frac{n}{2}$$

$$\begin{aligned} & \text{+1} \quad \text{+1} \\ & \hline -2(5) \geq \left(-\frac{n}{2}\right)(-2) \\ & -10 \leq n \quad \quad \quad n \geq -10 \end{aligned}$$



Solve.

$$3.2m - 0.5 \geq 26.7$$

$$+0.5 \quad +0.5$$

$$\begin{array}{r} 8.5 \\ 32 \overline{) 272.0} \\ \underline{-256} \\ 160 \\ \underline{-160} \\ 0 \end{array}$$

$$\begin{array}{r} 3.2m \geq 27.2 \\ \hline 3.2 \quad 3.2 \end{array}$$

$$m \geq 8.5$$

Write an inequality to solve the problem.

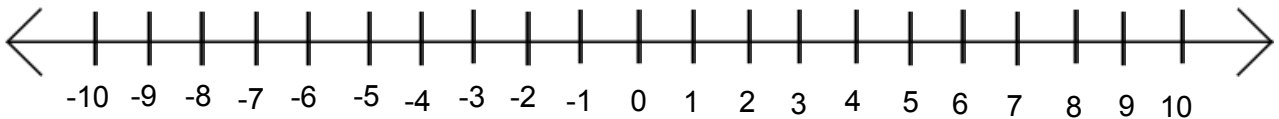
A salesperson makes \$340 per week in base pay plus 10% commission on all of their sales. How much merchandise would they need to sell if they want to make more than \$600?

$$\begin{array}{r} 340 + 0.1s > 600 \\ -340 \quad \quad -340 \\ \hline 0.1s > 260 \\ \frac{0.1s}{0.1} > \frac{260}{0.1} \quad s > 2600 \end{array}$$

more than \$2600 in merchandise

Solve and graph.

$$14 > -d + 6$$



Write an inequality to solve the problem.

Nate puts \$20 in his savings account each week. If he already has \$190 in his savings account, how long will it take him to save up enough money to buy a projector for \$530?

Write an inequality to solve the problem.

Jane's cell phone plan costs \$35 per month plus \$0.06 per minute for calls. How many minutes can she use if she wants to keep her bill under \$50?

Solve.

$$\frac{3}{4}g - \frac{1}{3} \leq -6$$

Solve.

$$-3.15 > 6.3 - w$$

