

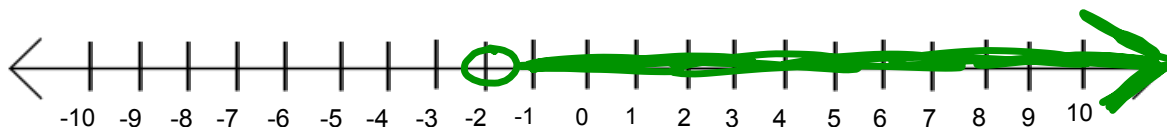
**Warm up:**

Solve and graph.

1)  $3x + 5 > -1$

$$\begin{array}{r} -5 \quad -5 \\ \hline 3x > -6 \\ \hline x > -2 \end{array}$$

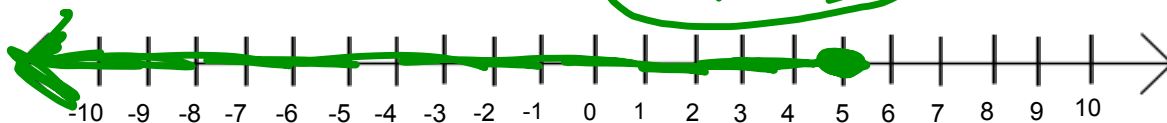
$x > -2$



2)  $-6 \leq 4 - 2x$

$$\begin{array}{r} -4 \quad -4 \\ \hline -10 \leq -2x \\ \hline -5 \leq -x \\ \hline 5 \geq x \\ \hline x \leq 5 \end{array}$$

$5 \geq x$   
 $x \leq 5$



$$\textcircled{1} \quad 20\% \downarrow$$
$$100\% - 20\% = 80\%$$

$$\frac{0.8x}{0.8} = \frac{58}{0.8}$$

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$$x = 72.50$$

$$\textcircled{\$ 72.50}$$

$$\begin{array}{r} \textcircled{9} \quad -2x + 9 > 19 \\ \quad \quad -9 \quad -9 \\ \hline \quad -2x > 10 \\ \quad \quad -2 \quad -2 \\ \hline \quad \quad \underline{\underline{x < -5}} \end{array}$$

$$\textcircled{a} \quad 30ab - 40b$$

$$10b(3a - 4)$$

⑩

$$\begin{array}{r} -8 \leq -2 + 3x \\ +2 \quad \quad +2 \end{array}$$

$$\frac{-6}{3} \leq \frac{3x}{3}$$

$$-2 \leq x$$

$$x \geq -2$$

$$\textcircled{5} \quad 4 - \frac{2}{3}a = -3$$

$-4 \qquad \qquad \qquad -4$

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$$-\frac{3}{2} \left( -\frac{2}{3}a \right) = (-7) \left( -\frac{3}{2} \right)$$

$$a = \frac{21}{2} = \textcircled{10\frac{1}{2}}$$

②

107%

1.07(925)

\$989.75

$$\textcircled{4} \quad 3 + 4(5x - 8)$$
$$\underline{\quad} \quad 3 + 20x - 32$$

$$\underline{\underline{20x - 29}}$$

$$3 - 32$$
$$3 + (-32)$$
$$-29$$



# Showdown

Ashley makes \$750 per week in base pay plus a 5% commission on her sales. What must her sales be if she wants to make at least \$1400 this week?

$$750 + 0.05s \geq 1400$$

$$\begin{array}{r} 750 + 0.05s \geq 1400 \\ -750 \qquad \qquad -750 \\ \hline 0.05s \geq 650 \end{array}$$

$$\begin{array}{r} 0.05 \overline{) 650} \\ \underline{13000} \phantom{0} \\ 5 \phantom{0000} \\ \underline{50000} \phantom{0} \\ -5 \phantom{000} \\ \underline{-5000} \\ 0 \end{array}$$

$$\begin{array}{r} 0.05s \geq 650 \\ \underline{0.05 \quad 005} \\ s \geq 13000 \end{array}$$

at least  
\$13000 in sales

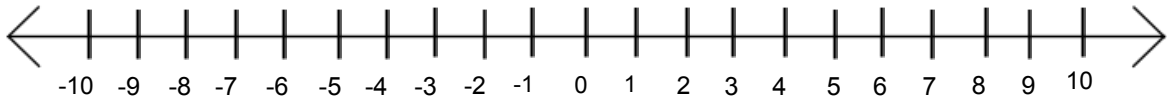
$$-0.2 > 0.3a - 0.47$$

$$\frac{2}{5}k + 2 \leq 1\frac{1}{3}$$

$$7 \geq 5 - \frac{z}{4}$$



$$30 < -5y$$



You are throwing a birthday party for your friend. You want to buy some hot dogs and an ice cream cake. The ice cream cake costs \$47 and each package of hot dogs costs \$3. How many packages of hot dogs can you buy if you want to spend less than \$80?

March 18, 2022

