

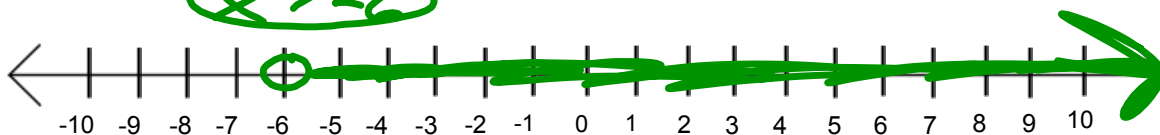
Warm up:

HW: Worksheet

Solve and graph.

1) $2 + 3x > -16$

$$\begin{array}{r} -2 \quad -2 \\ \hline 3x > -18 \\ \hline x > -6 \end{array}$$



2) $11 \leq 1 - 2x$

$$\begin{array}{r} -1 \quad -1 \\ \hline 10 \leq -2x \\ \hline -5 \geq x \end{array}$$

$x \leq -5$



1) Greg is selling his art at a craft fair. After selling 3 of his paintings, he had less than 10 left. How many paintings did he bring to the craft fair?

$$\begin{array}{r} X - 3 < 10 \\ + 3 \quad + 3 \\ \hline X < 13 \end{array}$$

less than 13 paintings

2) Working as a waitress, Donna makes \$150 per week in base pay plus a 20% tip on the cost of each meal she serves. What must be the total cost of the meals she serves if she wants to make at least \$600 per week?

$$\begin{array}{r} 150 + 0.2m \geq 600 \\ -150 \qquad \qquad -150 \\ \hline 0.2m \geq 450 \\ \hline 0.2 \qquad \qquad 0.2 \\ \hline \end{array}$$

$m \geq 2250$
She would need to serve at least
\$2250 worth of food

3) A moving company is loading a 920 lb piano into a service elevator. Find how much additional weight the elevator can carry if its maximum capacity is 1,800 lb.

$$\begin{array}{r} 920 + X \leq 1800 \\ -920 \qquad -920 \\ \hline X \leq 880 \end{array}$$

880 lb or less

4) Audrey wants to spend less than \$38.50 on new golf balls. If each box costs \$11, what is the maximum number of boxes of golf balls that she can buy?

$$\frac{11x < 38.50}{11 \quad 11}$$

$$x < 3.5$$

$$\begin{array}{r} 3.5 \\ 11 \overline{) 38.5} \\ \underline{- 33 } \\ 55 \end{array}$$

3 boxes or less

5) Max charges \$6.25/h to rake leaves. He is trying to save enough money for a new pair of shoes that cost \$89. How many whole hours will he need to work to buy the shoes?

6) First Bank charges \$4.50 per month for a basic checking account plus \$0.15 for each check written. Citizen's Bank charges a flat fee of \$9. How many checks would you have to write each month in order for Citizen's Bank to be a better deal?

7) Manny plays on a baseball team and is trying to break his school's record by getting 61 hits this season. Halfway through the season he already had 34 hits. Manny averages 2 hits per game. At that rate, how many more games will it take for Manny have at least 61 hits.

8) A tank of water currently has 50 gallons in it but it has developed a leak causing it to lose 3 gallons per minute. After how many minutes will the tank have less than 32 gallons in it?

9) How long can each side of an equilateral triangle be if its perimeter is at most 84cm?

March 3, 2022

