

HW: Worksheet

Warm up:

$$-9 - 5$$

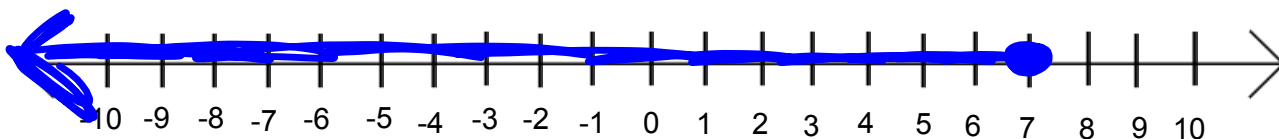
$$-9 + (-5) = -14$$

Solve and graph.

$$-9 < 5 - 2x$$

$$\begin{array}{r} -5 \quad -5 \\ \hline -14 < -2x \\ \hline -2 \quad -2 \\ \hline 7 \geq x \end{array}$$

$$x \leq 7$$



$$6.1a - 3.18 \leq 32.20$$

$$+ 3.18 \quad + 3.18$$


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$$6.1 \overline{) 35.38}$$

$$\begin{array}{r}
 61 \overline{) 3538} \\
 \underline{-305} \phantom{0} \\
 488 \\
 \underline{-488} \\
 0
 \end{array}$$

$$\frac{6.1a}{6.1} \leq \frac{35.38}{6.1}$$

$$a \leq 5.8$$

$$\begin{array}{r}
 61 \\
 \times 5 \\
 \hline
 305
 \end{array}
 \quad
 \begin{array}{r}
 61 \\
 \times 7 \\
 \hline
 427
 \end{array}
 \quad
 \begin{array}{r}
 61 \\
 \times 8 \\
 \hline
 488
 \end{array}$$

$$2\frac{1}{3} - \frac{3}{4}$$

$$\frac{28}{12} - \frac{9}{12}$$

$$\frac{19}{12}$$

$$2\frac{1}{3} > \frac{3}{4} - 2n$$

$$-\frac{3}{4} \quad -\frac{3}{4}$$

$$\frac{19}{12} \div (-2)$$

$$\frac{19}{12} \cdot \left(-\frac{1}{2}\right)$$

$$\frac{19}{12} > -2n$$

$$-2 \quad -2$$

$$-\frac{19}{24} < n$$

$$n > -\frac{19}{24}$$

After spending \$42 at Walmart, Joe still had more than \$80 in his wallet. How much money did he have when he entered the store?

$$\begin{array}{r} X - 42 > 80 \\ + 42 \quad + 42 \\ \hline X > 122 \end{array}$$

more than \$122

A local Italian restaurant charges \$11 for a large pizza and \$1.50 for each topping. If you have \$20, how many toppings can you add to your pizza?

$$\begin{array}{r}
 11 + 1.50t \leq 20 \\
 -11 \qquad \qquad \qquad -11 \\
 \hline
 1.50t \leq 9 \\
 \frac{1.50}{1.50} \qquad \frac{1.50}{1.50} \\
 \hline
 t \leq 6
 \end{array}$$

$$\begin{array}{r}
 1.5 \overline{) 9.0} \\
 \underline{15} \phantom{0} \\
 90 \\
 \underline{90} \\
 0
 \end{array}$$

$\Rightarrow$

$$\begin{array}{r}
 1.5 \\
 \times 6 \\
 \hline
 9.0
 \end{array}$$

6 toppings or less

An online savings account pays 2% annual interest. If you want to make at least \$400 in interest this year, how much money do you need to have in the account?

$$\frac{0.02m \geq 400}{0.02} \quad \frac{400}{0.02}$$

$$m \geq 20000$$

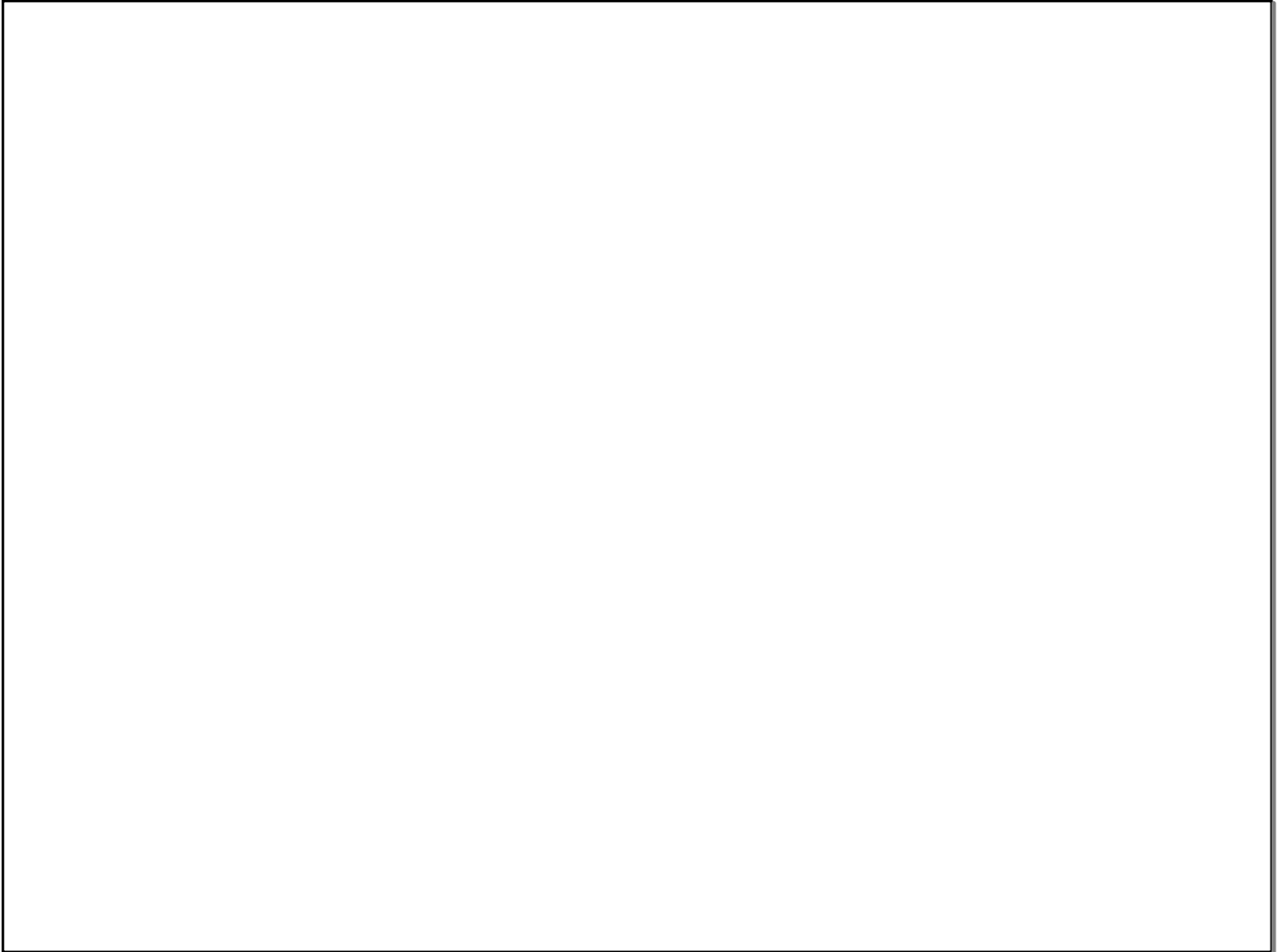
At least \$20000

2%

0.02

$$\begin{array}{r} 0.02 \overline{)400} \\ \underline{20000} \\ 0 \end{array}$$

March 1, 2022



# Practice



1) Ophelia makes \$14/h working at the bank. She is saving up for a TV that costs \$500. If she already has \$200 saved, how many whole hours will she need to work before she has enough money for the TV?

$$14h + 200 \geq 500$$

$$\begin{array}{r} -200 \\ \hline \end{array}$$

$$\begin{array}{r} 21.4 \\ 14 \overline{) 300.0} \\ \underline{-280} \phantom{0} \\ 20 \phantom{0} \\ \underline{-14} \phantom{0} \\ 60 \\ \underline{-56} \\ 4 \end{array}$$

$$\begin{array}{r} 14h \geq 300 \\ \hline 14 \phantom{0} \\ 14 \phantom{0} \end{array}$$

$$h \geq 21.4\dots$$

22h or more

2) 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?

3) 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?

4) 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?

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

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