

Name: _____

No work No credit

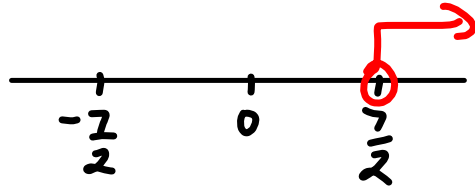
Date: _____

CW # 2-4: Algebra 1 - Standard 21 - 23: Sections 6-1 to 6-5

(20 points)

1. Solve and graph the given inequality:

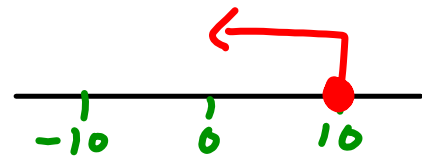
$$\begin{aligned} 3(2x - 4) &> 4x - 5 \\ 6x - 12 &> 4x - 5 \\ -4x & \quad -4x \\ 2x - 12 &> -5 \\ +12 & \quad +12 \\ \frac{2x}{2} &> \frac{7}{2} \rightarrow \boxed{x > \frac{7}{2}} \end{aligned}$$



2. Write a mathematical inequality, solve and graph:

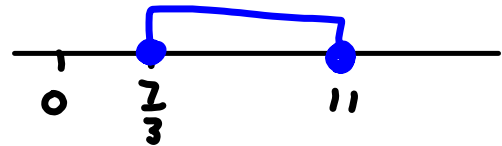
"3 less than twice a number is no more than seventeen"

$$\begin{aligned} 2x - 3 &\leq 17 \\ +3 & \quad +3 \\ 2x &\leq 20 \\ \frac{2x}{2} &\leq \frac{20}{2} \\ \boxed{x \leq 10} \end{aligned}$$



3. solve and graph the following compound inequality:

$$\begin{aligned} -2 &\leq 3x - 9 \leq 24 \\ +9 & \quad +9 \quad +9 \\ 7 &\leq 3x \leq 33 \\ \frac{7}{3} &\leq \frac{3x}{3} \leq \frac{33}{3} \\ \boxed{\frac{7}{3} \leq x \leq 11} \end{aligned}$$



Name: _____

No work No credit

Date: _____

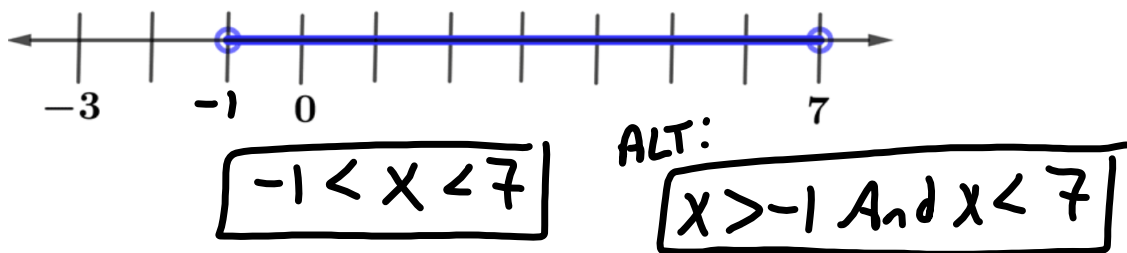
CW # 2-4: Algebra 1 - Standard 21 - 23: Sections 6-1 to 6-5

(20 points)

4. Solve and graph the following compound inequality:

$$\begin{aligned} -2x - 4 > 8 \text{ and } \frac{3}{4}x + 1 &\geq 7 \\ \begin{array}{l} +4 \quad +4 \\ \hline -2x > 12 \\ \hline \frac{-2x}{-2} > \frac{12}{-2} \end{array} & \quad \begin{array}{l} -1 \quad -1 \\ \hline \frac{3}{4}x \geq 6 \\ \hline \frac{3}{4}x \geq 6 \left(\frac{4}{3}\right) \end{array} \\ \boxed{x < -6 \text{ And } x \geq 8} & \quad \boxed{\text{No solution}} \\ & \quad \boxed{\text{no overlap!}} \end{aligned}$$

5. Write a compound inequality to represent the given graph:



6. Solve and graph the following compound inequality:

$$\begin{aligned} 5x + 7 < -13 \text{ or } \left(-\frac{1}{2}\right)x &\leq -4 \quad (-2) \\ \begin{array}{l} -7 \quad -7 \\ \hline 5x < -20 \\ \hline \frac{5x}{5} < \frac{-20}{5} \end{array} & \quad \begin{array}{l} x \geq 8 \end{array} \\ \boxed{x < -4 \text{ OR } x \geq 8} & \quad \begin{array}{c} \leftarrow \quad \rightarrow \\ \hline -4 \quad 0 \quad 8 \end{array} \end{aligned}$$

Name: _____

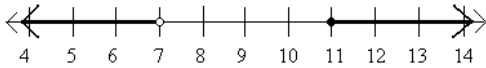
No work No credit

Date: _____

CW # 2-4: Algebra 1 - Standard 21 - 23: Sections 6-1 to 6-5

(20 points)

7. Write a compound inequality to represent the given graph:



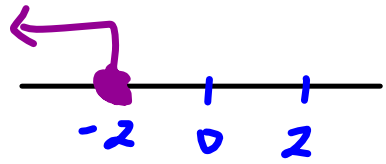
$$x < 7 \text{ or } x > 11$$

8. Write and solve an inequality:

Five times a number added to two is less than or equal to two times the same number minus 4

$$\begin{aligned} 5x + 2 &\leq 2x - 4 \\ -2x &\quad -2x \\ \hline 3x + 2 &\leq -4 \\ -2 &\quad -2 \\ \hline 3x &\leq -6 \end{aligned}$$

$$\begin{aligned} \frac{3x}{3} &\leq \frac{-6}{3} \\ x &\leq -2 \end{aligned}$$



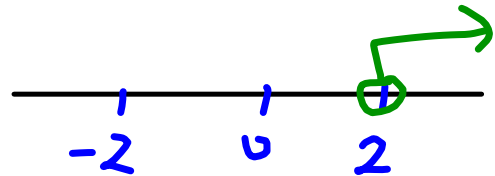
9. Write and solve an inequality:

half a number minus four is greater than negative three

$$\begin{aligned} \frac{1}{2}x - 4 &> -3 \\ +4 &\quad +4 \end{aligned}$$

$$\left(\frac{2}{2}\right) \frac{1}{2}x > 1 \quad (2)$$

$$x > 2$$



Name: _____

No work No credit

Date: _____

CW # 3-1: Algebra 1 - Standard 21 - 23: Sections 6-1 to 6-5

(50 points)

10. Sketch the graph of the given inequality:

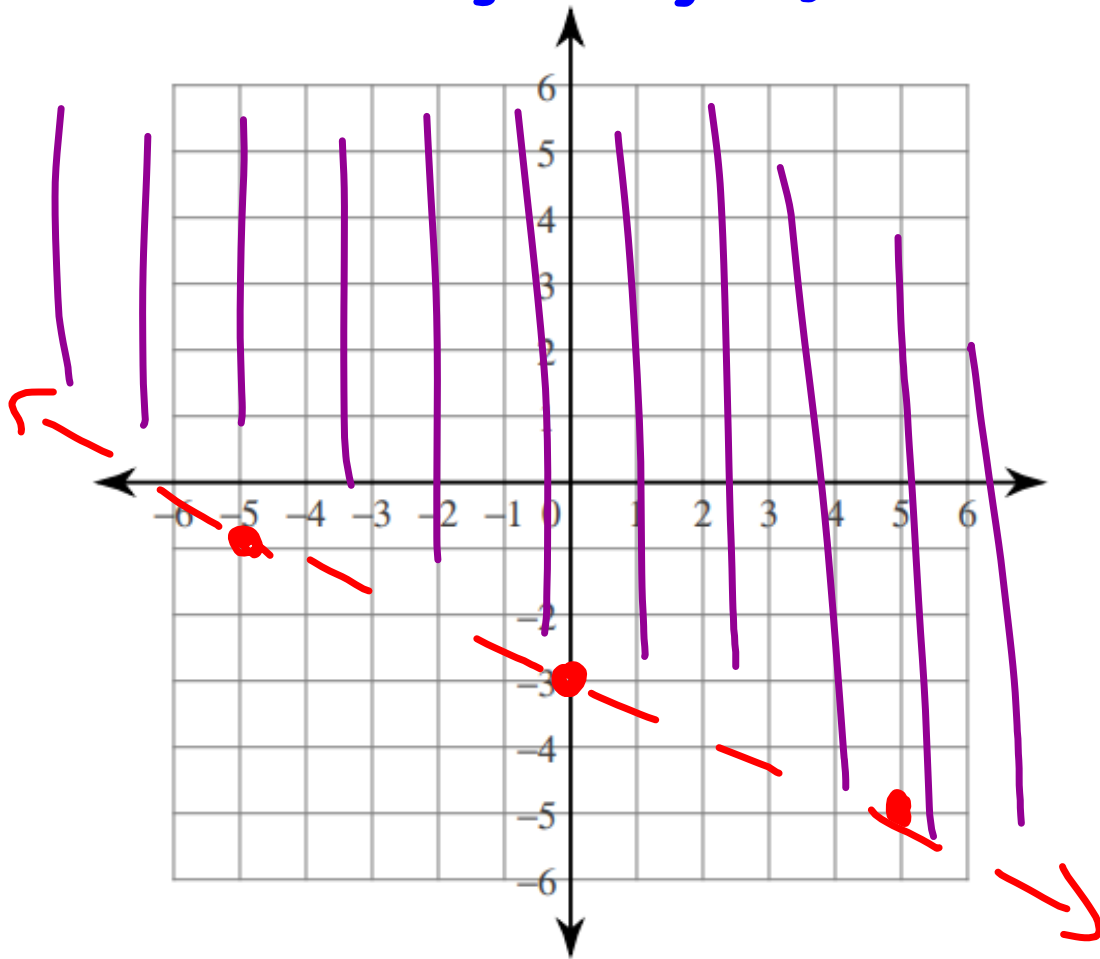
$$2x + 5y > -15$$

$$\begin{matrix} -2x & -2x \\ \hline & \end{matrix}$$

$$y > -\frac{2}{5}x - 3$$

$$\leftarrow \frac{5y}{5} > -\frac{2x}{5} - \frac{15}{5}$$

DOTTED
Above



State any ordered pair that is a solution to the inequality

VARIES → JUST has to be in
Shaded Area.

Attachments

cw # 2-4 - Chapter 6 test review blank.pdf