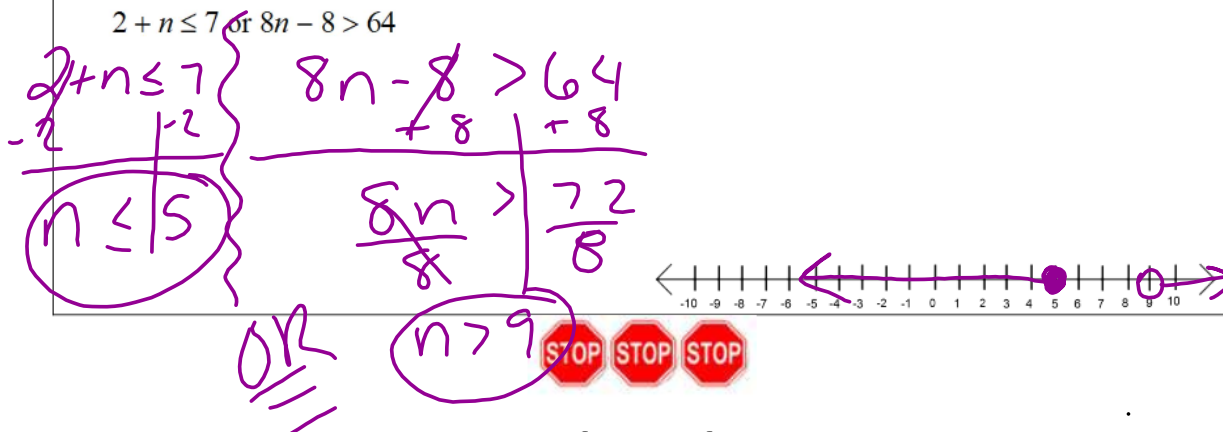


DO NOW ~ Tuesday 12/10

Solve and graph the following compound inequality:

$$2 + n \leq 7 \text{ or } 8n - 8 > 64$$



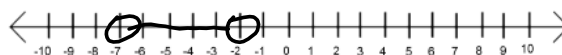
Classwork

Solve and graph the following SMOOSH (and) compound inequalities.

$$\begin{array}{rcl} 0 \leq x - 1 & < & 7 \\ +1 & & +1 \\ \hline 1 \leq x & < & 8 \end{array}$$



$$\begin{array}{rcl} -13 & < & 8 + 3a < 2 \\ -8 & & -8 \\ \hline -21 & < & 3a < -6 \\ \div 3 & & \div 3 \\ -7 & < & a < -2 \end{array}$$



$$\begin{array}{rcl} -49 \leq -5n - 4 & \leq & 16 \\ +4 & & +4 \\ \hline -45 \leq -5n & \leq & 20 \\ \div (-5) & & \div (-5) \\ 9 \geq n & \geq & -4 \end{array}$$



DO NOW ~ Wednesday 12/11

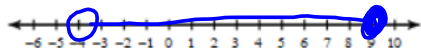
Graph the following compound inequality: $x < 4$ or $x > 9$ 

Classwork

Solve the following compound inequalities and graph their solutions.

$$73 \geq 7x + 10 > -18$$

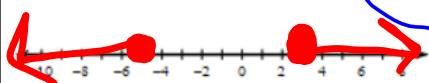
$$\begin{array}{r|l} -10 & -10 & -10 \\ \hline 63 & 7x & -28 \\ \hline 7 & 7 & 7 \\ \hline 9 & x & -4 \end{array}$$



$$-6b + 3 \leq -15 \text{ or } 3 - 8b \geq 43$$

$$\begin{array}{r|l} -6b + 3 & \leq -15 \\ \hline +3 & -3 \\ \hline -6b & \leq -18 \\ \hline -6 & -6 \\ \hline b & \geq 3 \end{array}$$

$$\begin{array}{r|l} +3 & -8b \geq 43 \\ \hline -3 & -3 \\ \hline -8b & \geq 40 \\ \hline -8 & -8 \\ \hline b & \leq -5 \end{array}$$



OR

$$b \leq -5$$

Name: _____ Algebra 9 Unit 2 Lesson 11

Solving Compound Inequalities

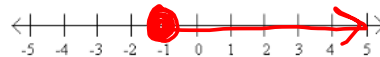
DO NOW ~ Friday 12/6

Solve and graph the following inequality: $-2x \geq 14$

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

$$\begin{array}{r} +5 \quad +5 \\ \hline x \geq -1 \end{array}$$

STOP STOP STOP

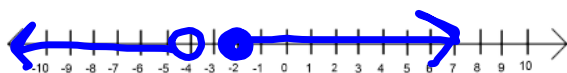


Classwork

Solve the following OR compound inequalities and graph.

$$4 + x \geq 2 \text{ or } x + 7 < 3$$

$$\begin{array}{r} 4 + x \geq 2 \\ \hline -4 \quad -4 \\ x \geq -2 \end{array} \quad \text{OR} \quad \begin{array}{r} x + 7 < 3 \\ \hline -7 \quad -7 \\ x < -4 \end{array}$$



$$x + 9 \leq 4 \text{ or } x + 3 > 9$$

$$\begin{array}{r} x + 9 \leq 4 \\ \hline -9 \quad -9 \\ x \leq -5 \end{array} \quad \text{OR} \quad \begin{array}{r} x + 3 > 9 \\ \hline -3 \quad -3 \\ x > 6 \end{array}$$



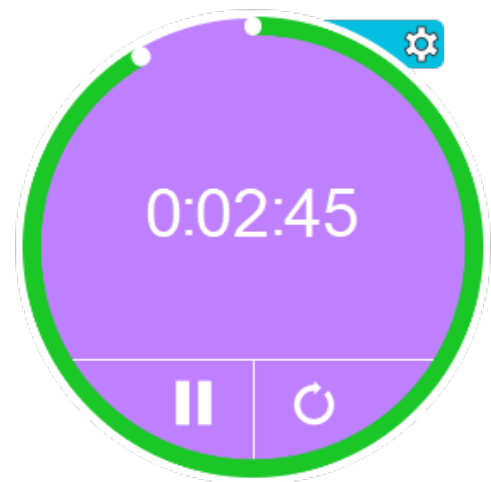
$$n - 8 \leq -10 \text{ or } 9n + 8 > 80$$

$$\begin{array}{r} n - 8 \leq -10 \\ \hline +8 \quad +8 \\ n \leq -2 \end{array} \quad \text{OR} \quad \begin{array}{r} 9n + 8 > 80 \\ \hline -8 \quad -8 \\ 9n > 72 \\ \hline \div 9 \quad \div 9 \\ n > 8 \end{array}$$



To earn your full participation point for the Do Now be sure to have completed all of the following by the time is up:

- 1) Be in your seat
- 2) Take out your calculator
- 3) Have last night's homework out
- 4) Complete the do now



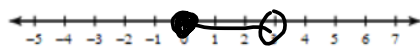
DO NOW ~ Thursday 12/12

Solve and graph the following compound inequality and graph its solution.

$$9 \leq 4r + 9 < 21$$

-9	-9	-9
$\frac{0}{4}$	$\frac{4r}{4}$	$\frac{12}{4}$

$0 \leq r < 3$





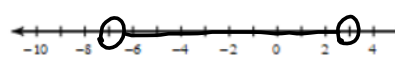
Classwork

Solve and graph the following compound inequalities and graph its solution.

$$-41 < -6 + 5n < 9$$

$+6$	$+6$	$+6$
$-\frac{35}{5}$	$\frac{5n}{5}$	$\frac{15}{5}$

$-7 < n < 3$



$$10r + 1 > 51 \text{ or } 3r + 3 \leq -18$$

$$10r + 1 > 51$$

-1	-1
$\frac{10r}{10}$	$\frac{50}{10}$

 $r > 5$

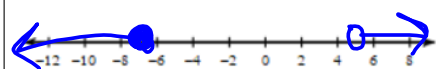
$$3r + 3 \leq -18$$

-3	-3
$\frac{3r}{3}$	$\frac{-21}{3}$

 $r \leq -7$

OR
 =

$r \leq -7$



Mrs. Ferreri's Station ~ Solving Compound Inequalities Task Cards

Show work here:

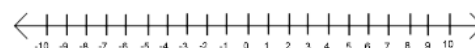
Continue onto next page.

Solve the following compound inequalities.

$$4 + x \geq 2 \text{ or } x + 7 < 3$$



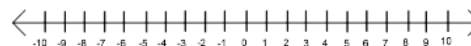
$$x + 9 \leq 4 \text{ or } x + 3 > 9$$



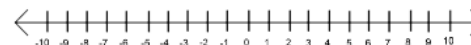
$$-41 < 4 + 9n \leq 40$$



$$-13 < 8 + 3a < 2$$



$$-49 \leq -5n - 4 \leq 16$$



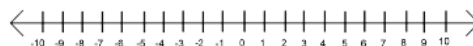
Computer Station ~ *Delta Math*

Complete the "Solving and Graphing Linear Inequalities" Assignment.

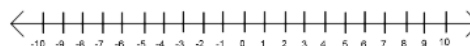
Mrs. Kennedy's Station ~ Solve and Graph Compound Inequalities

Solve and graph each compound inequality and graph the solution.

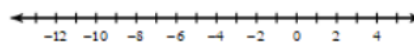
$$n - 8 \leq -10 \text{ or } 9n + 8 > 80$$



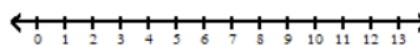
$$2 + n \leq 7 \text{ or } 8n - 8 > 64$$



$$4n - 2 \leq -38 \text{ or } -4n - 9 < -13$$

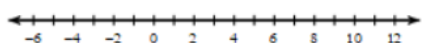


$$v - 7 < -4 \text{ or } v + 8 > 17$$

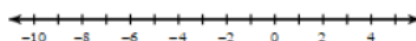


Continue onto next page.

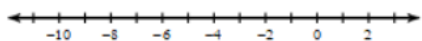
$$-9 \leq a - 5 < 4$$



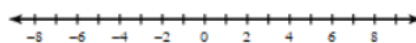
$$-1 + v < -7 \text{ or } 8v \geq 16$$



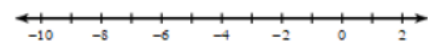
$$x + 5 \geq 5 \text{ or } 2 + x < -4$$



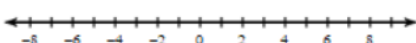
$$4m - 3 > 17 \text{ or } -m + 2 \geq 7$$



$$40 \leq -8v \leq 64$$

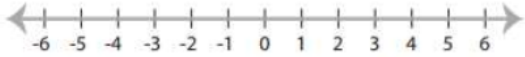


$$-34 \leq 8 - 7p < 43$$

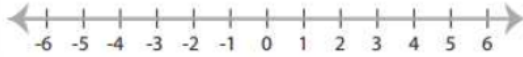


Continue onto next page.

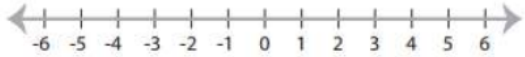
1) $x \leq 0$ or $x > 2$



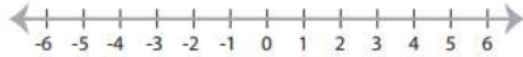
2) $x > -1$ and $x < 3$



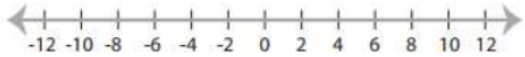
3) $-4 < x \leq 4$



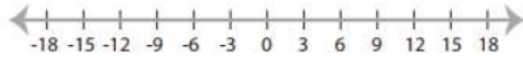
4) $x \geq 5$ or $x \leq -6$



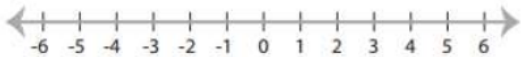
5) $10 > x > -8$



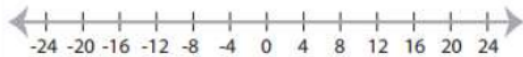
6) $x < 9$ and $x \geq 3$



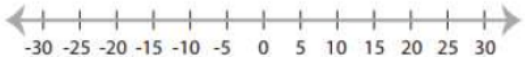
7) $x \leq -2$ and $x \geq -5$



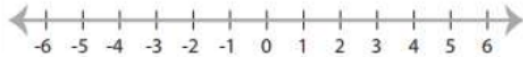
8) $x \geq 12$ or $x < -16$



9) $x > 10$ and $x < 20$



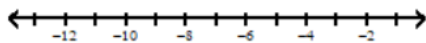
10) $-3 \leq x < 1$



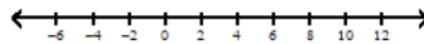
Homework ~ Tuesday 12/10

Solve and graph the following compound inequalities.

$$v + 9 \leq 0 \text{ or } -5v < 25$$



$$-1 + n > 9 \text{ or } n - 10 \leq -14$$



Graph the following compound inequalities.

$$0 \leq x \leq 5$$



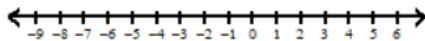
$$x \leq -7 \text{ or } x > 0$$



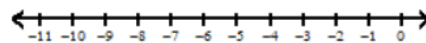
Homework ~ Wednesday 12/11

Solve and graph the following compound inequalities.

$$-4 < x + 2 < 6$$



$$-30 \leq 3b < -6$$



Graph the following compound inequalities.

$$-2 \leq x \leq 10$$



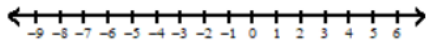
$$x \leq 0 \text{ or } x > 3$$



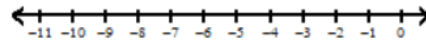
Homework ~ Thursday 12/12

Solve and graph the following compound inequalities.

$$41 < 5 + 9b < 95$$



$$2n + 6 \leq -6 \text{ or } 4n - 1 \geq -1$$



Graph the following compound inequalities.

$$-1 < x \leq 8$$



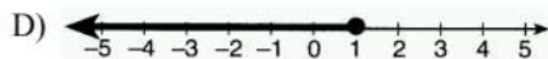
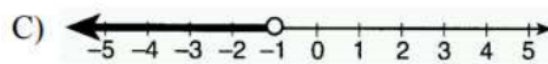
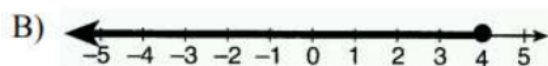
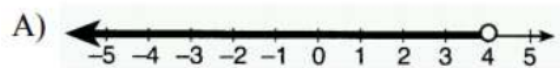
$$x < -5 \text{ or } x \geq 0$$



Name: _____ Inequalities Graded Classwork

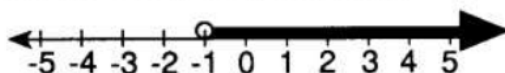
Solve and show all of your work.

1)

Which graph represents the solution set of $2x - 5 < 3$?

2)

Which inequality is represented by the graph below?



A) $x > -1$

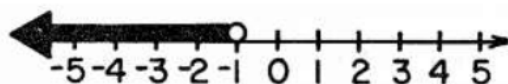
B) $x < -1$

C) $x \geq -1$

D) $x \leq -1$

3)

Which inequality is represented by the graph below?



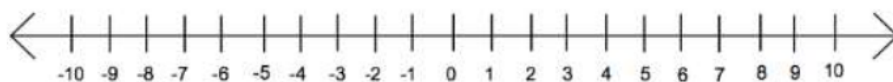
A) $x > -1$

B) $x \leq -1$

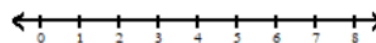
C) $x < -1$

D) $x \geq -1$

4)

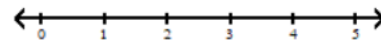
Solve AND graph the following inequality: $-2(x - 5) < 4$ 

5)

Solve and graph the inequality: $-6(1 + 2m) - 7m \geq -101$ 

6)

$$22 \geq 6 + 7b + 2$$



7) Which inequality has the solution the graph is showing?



a) $15 < 3(4x - 7)$

b) $3(4x - 7) \leq 15$

c) $3(4x - 7) \geq 15$

d) $15 > 3(4x - 7)$