

hw # 35a - standard 22 - Solve Compound Inequalities filled in

Name: Key Show work needed to justify your answer. Date: _____

HW # 35a: Algebra 1 - Standard 22 - Solve Compound Inequalities

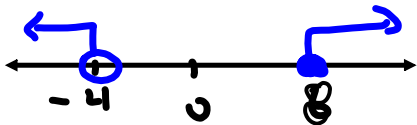
5 points

Solve each compound inequality. Then graph the solution set.

3. $y - 1 \geq 7$ or $y + 3 < -1$

$\begin{matrix} +1 & +1 & -3 & -3 \\ \hline y \geq 8 & \text{OR} & y < -4 \end{matrix}$

Algebraic Ans.



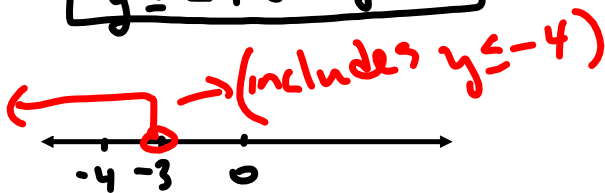
8. $22 \geq 4m - 2$ or $5 - 3m \leq -13$

$\begin{matrix} +2 & +2 & -5 & -5 \\ \hline 24 \geq 4m & \text{OR} & -3m \leq -18 \\ \frac{24}{4} & & \frac{-3m}{-3} & \frac{-18}{-3} \\ 6 \geq m & \text{OR} & m \geq 6 \end{matrix}$



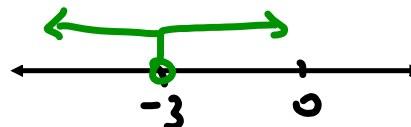
9. $-y + 5 \geq 9$ or $3y + 4 < -5$

$\begin{matrix} -5 & -5 & -4 & -4 \\ \hline -1y \geq 4 & \text{OR} & 3y < -9 \\ \frac{-1y}{-1} & & \frac{3y}{3} & \frac{-9}{3} \\ y \leq -4 & \text{OR} & y < -3 \end{matrix}$



14. $5n - 1 < -16$ or $-3n - 1 < 8$

$\begin{matrix} +1 & +1 & +1 & +1 \\ \hline 5n < -15 & \text{OR} & -3n < 9 \\ \frac{5n}{5} & & \frac{-3n}{-3} & \frac{9}{-3} \\ n < -3 & \text{OR} & n > -3 \end{matrix}$



Write a compound inequality that describes each graph.



$x < -2$ or $x \geq 1$



$x < -1$ or $x > 2$



$x \leq 0$ or $x > 3$

40. **CONSTRUCT ARGUMENTS** Bianca said that if k is a real number, then the solution set of the compound inequality $x < k$ or $x > k$ is all real numbers. Do you agree?

Justify your argument. *Disagree. Solution set includes all values except $x = k$.*