

Reminders: Please show all your work neatly on this worksheet.

This should be some of your most careful work!

Name: _____

	<i>Show your work neatly (when relevant).</i>	<i>Copy down your final answer.</i>
1.	Graph the following inequality and give it in interval notation: $x \geq 5$ Use the space below to show your graph. Put interval in answer box.	
2.	Graph the following inequality and give it in interval notation: $\frac{1}{2} < x \leq 5$ Graph fractions exactly – don't approximate. Use space below to show your graph. Put interval in answer box.	
3.	For the sets $A = \{2, 3, 4, 5, 6, 7\}$ & $B = \{0, 2, 4, 6, 8, 10\}$ give: $A \cap B$ List the set using a roster.	
4.	For the sets $A = \{2, 3, 4, 5, 6, 7\}$ & $B = \{0, 2, 4, 6, 8, 10\}$ give: $A \cup B$ List the set using a roster.	
5.	For the sets $C = \{x \mid x \in \mathbb{R}, x > 0\}$ & $D = \{x \mid x \in \mathbb{I}, x \text{ is negative}\}$ give: $C \cap D$ Give the answer using a roster.	
6.	T or F An intersection is a mathematical "or".	
7.	T or F A union is a gathering of all elements from all involved sets.	
8.	Give the solution on a graph and in interval notation: $x > 5$ or $x \leq -5$ Show your graph in the space below. Put the interval in the answer box.	
9.	Give the solution on a graph and in interval notation: $x > -5$ and $x \leq 5$ Show your graph in the space below. Put the interval in the answer box.	
11.	Solve the following inequality and give your answer in set builder notation: $5x - 3 > 3x - 9$	

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12.	Solve the following inequality and give your answer in set builder notation: $-3(2x + 5) + 5x \leq 2(x - 3)$	
13.	Solve, graph and give your answer in interval notation: $-5 \leq 3x + 1 < 13$	
14.	Solve. Give your answer simply as an inequality. $-\frac{2}{3}x > 14$	
15.	Solve. Give your answer simply as an inequality. $7 \leq 5 - 2x < 13$	
16.	Clear of fractions and solve. Give your answer simply as an inequality. $\frac{1}{2}y + \frac{2}{3} \geq \frac{3}{2}$	
17.	Clear of fractions and solve. Give your answer simply as an inequality. $\frac{4c - 7}{15} + \frac{2c + 3}{10} < \frac{2}{5}$.	
18.	Clear of fractions and solve. Give your answer simply as an inequality. $\frac{1}{3} < 4 - \frac{2}{3}n < 2$	