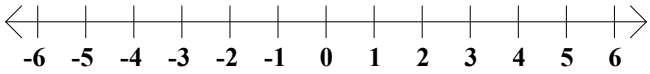
General Algebra II CWS #3 Unit 1 page 1 _____

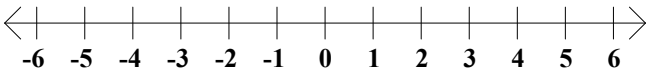
Solve each of the following continued inequalities. Then express the solution set using interval notation and sketch its graph. (Show your work neatly organized.)

1. $2 \leq 5x - 3 \leq 12$

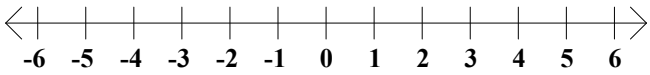
2. $-3 < 4x + 9 < 15$



3. $-5 < 3x + 5 \leq 5$

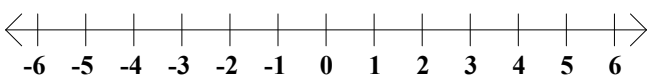


4. $-6 \leq 4x - 10 < 10$



5. $-15 \leq -6x + 3 \leq 27$

6. $-12 < -2x - 3 < 4$



Solving Compound Inequalities Type 1 'and'

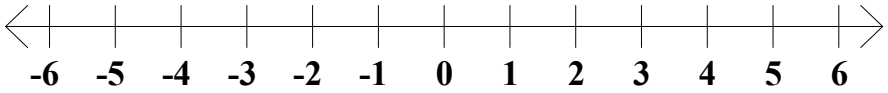
Step 1: Solve each basic inequality.

Step 2: The solution set of the compound inequality is the intersection of the solution sets of the basic inequality.

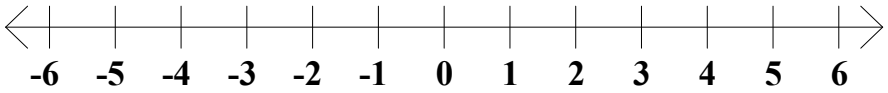
Step 3: Express the final solution in simplest form.

Solve each of the following for x. Represent the solution set as an interval or the union of intervals and sketch its graph.

7. $3x + 5 < 11$ and $2x + 3 > -3$



8. $-2x - 3 \geq 5$ and $4x + 6 \leq 14$



9. $x - 1 > 3$ and $-2x - 5 > 1$

Solving Compound Inequalities Type 2 'or'

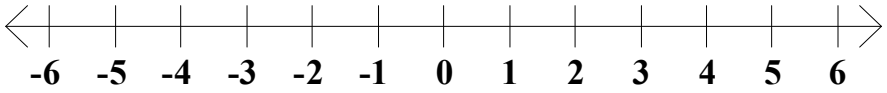
Step 1: Solve each basic inequality.

Step 2: The solution set of the compound inequality is the union of the solution sets of the basic inequality.

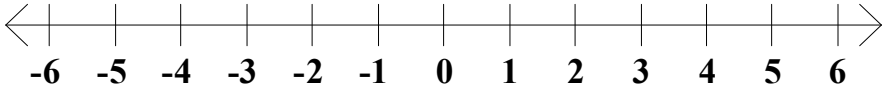
Step 3: Express the final solution in simplest form.

Solve each of the following for x. Represent the solution set as an interval or the union of intervals and sketch its graph.

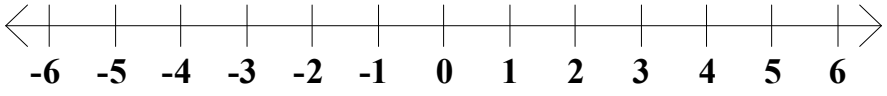
10. $2x + 7 \geq 1$ or $3x - 2 \geq 10$



11. $-5x + 11 < 1$ or $x + 5 < 1$



12. $3x + 4 \geq 1$ or $-4x + 10 > 2$



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