Algebra - November 8, 2011

Morning Quiz

Solve and graph on a number line

$$5n + 3 - 4n < -5 - 3n$$

When you finish, please check your work:

3) $8 > -\frac{5}{4}$

7) $a \leq 3$

13) $b < \frac{1}{3}$

17) $w \leq \frac{9}{2}$

19) $r \leq \frac{5}{2}$

21) $w < 3$

23) $d \leq 6$

31) $q \leq -2$

35) $v \geq 2$

1) Fractions/Decimals
2) Distribute
3) Combine Like Terms (CLT
4) Undo Addition/Subtraction
5) Undo Multiplication/Divisi

$5n + 3 - 4n < -5 - 3n$

$n + 3 < -5 - 3n$

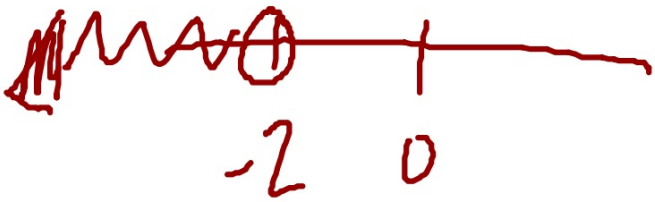
$+3n \qquad +3n$

$4n + 3 < -5$

$-3 \quad -3$

$\frac{4n}{4} < \frac{-8}{4}$

$n < -2$

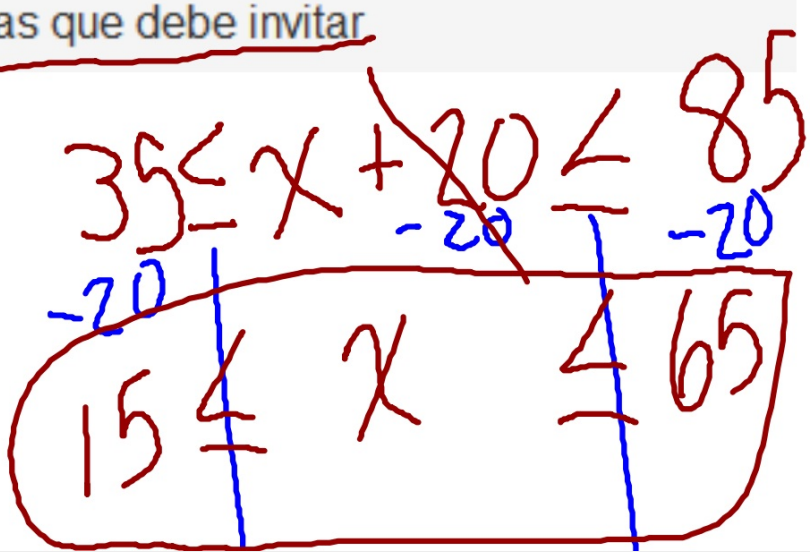


Objective: Today we will solve and graph **Compound Inequalities** using properties of inequality.

Language Objective: Today we will read write solutions to word problems involving compound inequalities.

Emilio is throwing a party. He already invited 20 friends. He wants at least 35, but no more than 85, people at the party. Write and solve an inequality to show the number of people Emilio should invite.

Emilio quiere hacer una fiesta. Él ya invitó a 20 amigos. Él quiere que al menos 35, pero no más de 85 personas en la fiesta. Escribe y resuelve una desigualdad para mostrar el número de personas que debe invitar.



$$10 < x \leq 20$$

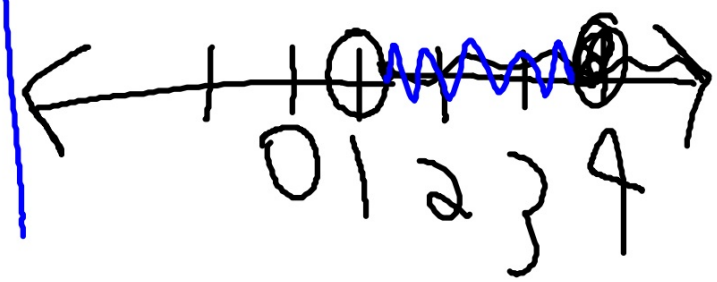
With a partner, write a short story about what this compound inequality means.

For example: I will pay more than $10, but no more than $20, for someone to wash my car.

Solve $-4 < r - 5 \leq -1$. Graph your solution.

$+5 \quad +5 \quad +5$

$1 < r \leq 4$



1. all real numbers that are between -4 and 6

$-4 < r < 6$