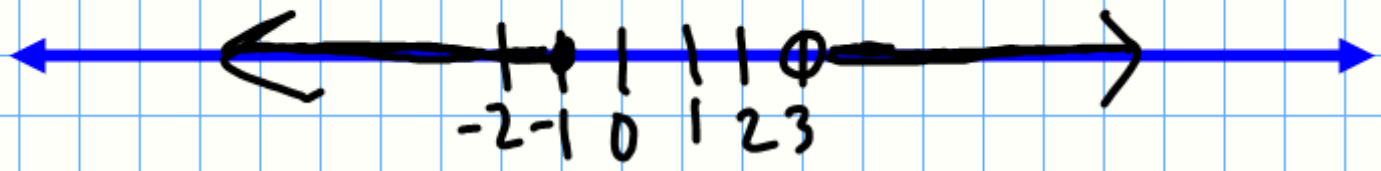
9/10/09

2.8 Solving Absolute Equations & Ineq.

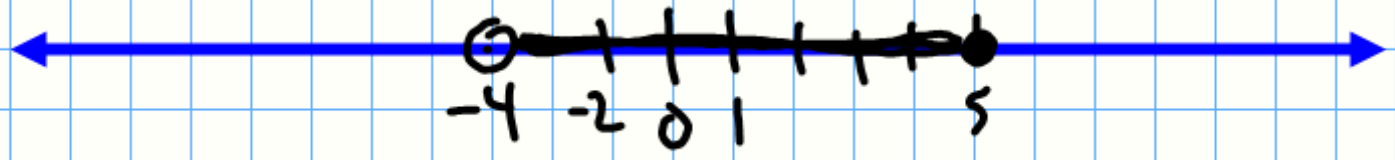
Ex.1 $x+3 \leq 2$ OR: $3x > 9$

$x \leq -1$ OR: $x > 3$



1B $\quad \frac{-2x}{-2} < \frac{8}{-2}$ AND $x - 3 \le 2$

$x > -4$ AND $x \le 5$



or > and < and

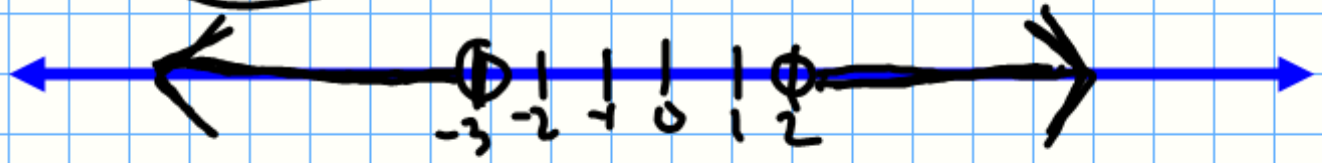
Ex.3A $|2x+1| > 5$

$2x+1 > 5$ $\quad$ $2x+1 < -5$

$-1 \quad -1$ $\quad$ $-1 \quad -1$

$\frac{2x}{2} > \frac{4}{2}$ $\quad$ $\frac{2x}{2} < \frac{-6}{2}$

$x > 2$ OR $x < -3$



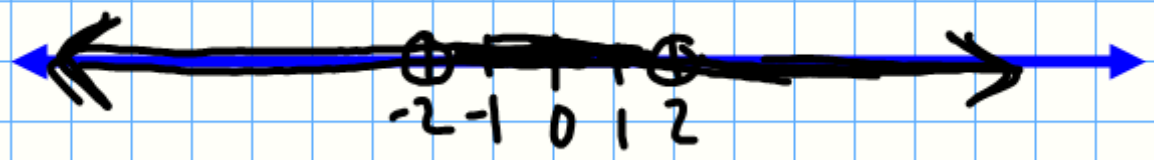
3B. $|4x| + 16 \text{ or } > 8$

$-16 \quad -16$

$|4x| > -8$

$\frac{4x}{4} > \frac{-8}{4}$ $\qquad$ $\frac{4x}{4} < \frac{8}{4}$

$x > -2$ $\qquad$ $x < 2$



4A $\frac{8}{1} \cdot \frac{|3x-9|}{8} \leq 12 \cdot 2$

$$|3x-9| \leq 24$$

$3x-9 \leq 24$

$\frac{3x}{3} \leq \frac{33}{3}$

$x \leq 11$

$3x-9 \geq -24$

$\frac{3x}{3} \geq \frac{-15}{3}$

$x \geq -5$

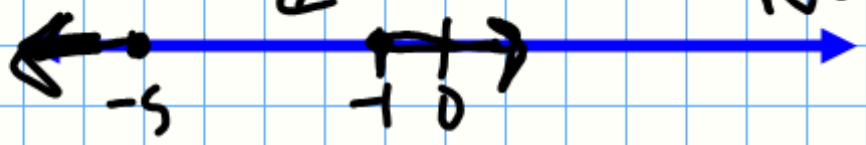
4B $\quad \dfrac{-4|x+3|}{-4} \geq \dfrac{8}{-4}$

$|x+3| \leq -2$ AND

$x+3 \leq -2$ $\qquad$ $x+3 \geq 2$

$-3 \quad -3$ $\qquad$ $-3 \quad -3$

$x \leq -5$ OR?? $x \geq -1$

No Solution.

$\emptyset$