Warm-up

① $|x-3| = 12$

$x-3 = 12$ or $x-3 = -12$

$+3 \quad +3 \qquad +3 \quad +3$

$x = 15$ or $x = -9$

② $|2x-3| = 19$

$2x-3 = 19$ or $2x-3 = -19$

1.7b Absolute Value Inequalities

Less Than

$|x| < 4$

that work

$\not{4}$ -3 2 $\not{4}$

graph (inbetween ... AND)

Breaking it up:

$x < 4$ and $x > -4$

Great OR

$|x| \geq 3$

$3 \geq 3$

that work

3, 4, 6, 12 → $x \geq 3$

$-3, -4, -27, -600.2 \rightarrow x \leq -3$

graph (outside ... OR)

Breaking up:

$x \geq 3$ or $x \leq -3$

Solve & graph

$$|4x+5|>13$$

Break it up! Greater

$$4x+5>13 \quad \text{or} \quad 4x+5<-13$$