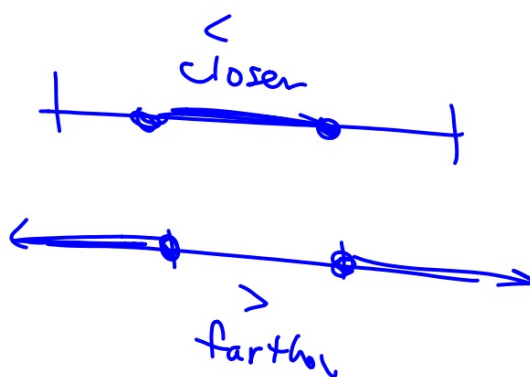


Algebra 1 5.5

- = Solve and graph absolute value inequalities
Write an absolute value inequality from a graph
inequality
absolute value
less than
greater than
floor graphs
whiteboards



Practice problems: whiteboards
Solve and graph

$$|x-7| \geq 8$$

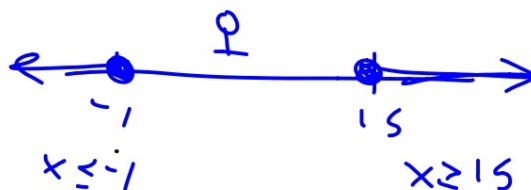
$$\begin{array}{r} x-7 = -8 \\ +7 \quad +7 \\ \hline x = -1 \end{array}$$

$$\begin{array}{r} x-7 = 8 \\ +7 \quad +7 \\ \hline x = 15 \end{array}$$

$$|x+1| < 7$$

$$\begin{array}{r} x+1 < 7 \\ -1 \quad -1 \\ \hline x < 6 \end{array}$$

$$|2x-3| > 19$$

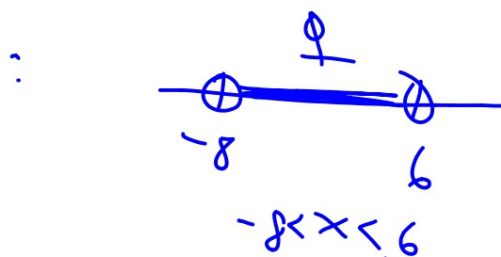


$$|3x-3| \leq 6$$

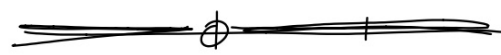
$$\begin{array}{r} x+1 = -7 \\ -1 \quad -1 \\ \hline x = -8 \end{array}$$

$$\begin{array}{r} x+1 = 7 \\ -1 \quad -1 \\ \hline x = 6 \end{array}$$

$$|4x-12| \leq 20$$



$$-1 < x < 15$$



A hand-drawn number line with a circle at the point 3. The circle is drawn with a vertical line passing through its center. Below the circle is the number 3. To the left of the circle, the text $x < 3$ is written. To the right of the circle, the text $x > 3$ is written. The number line itself is a horizontal line with arrows at both ends, and there is a small tick mark to the right of the circle.

$$x < 3 \quad \text{or} \quad x > 3$$

$$|2x-5| < 13$$

$$|2(x+1)| \geq 7$$