Algebra 1 5.5

Solve and graph absolute value inequalities (distance)

Write an absolute value inequality from a graph

inequality

absolute value

less than

greater than

floor graphs

whiteboards

ICE ws

Bubble?

$|x-4|>18$

$x-4=-18$

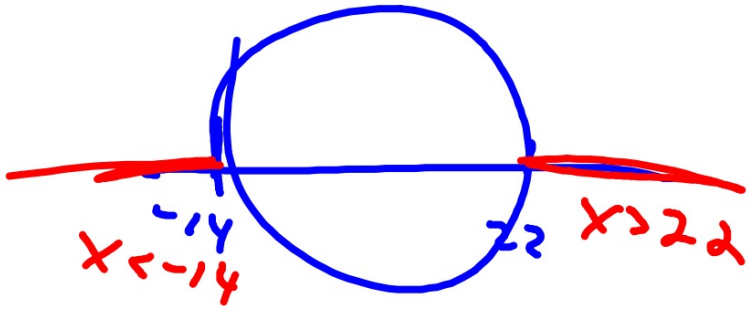
$+4 \quad +4$

$x=-14$

$x-4=18$

$+4 \quad +4$

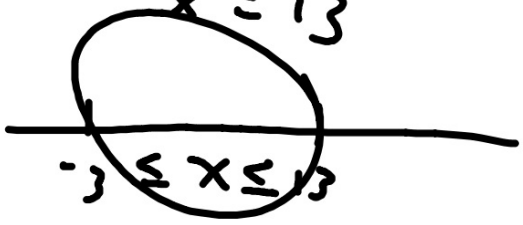
$x=22$



$$|x-5| \leq 8$$

$$\begin{array}{r} x-5=-8 \\ +5 \quad +5 \\ \hline x=-3 \end{array}$$

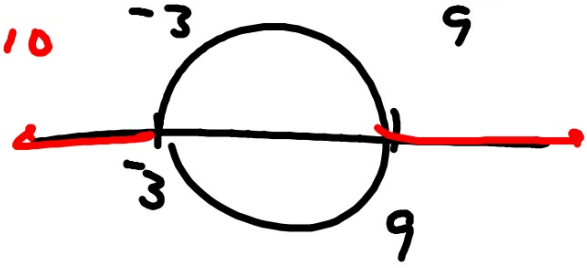
$$\begin{array}{r} x-5=8 \\ +5 \quad +5 \\ \hline x=13 \end{array}$$



Practice problems:
Solve and graph

* $|x-3|>6$

$x-3=-6$ $x-3=6$
$+3\ +3$ $+3\ +3$
$x=-3$ $x=9$



$|x-2|<8$ $-6<x<10$

* $|2x-6|>12$

* $|3x-1|<14$

$|5x+10|\leq 25$