

Algebra 1 2.5

Evaluate absolute value expressions
Solve absolute value equations

distance
absolute value

whiteboards

ICE ws

$$\begin{array}{c} |(-5)| \\ \downarrow \\ 5 \end{array}$$

Evaluate each expression if $f = 3$, $g = -4$, and $h = 5$.

1. $|3 - 5| + 13$

$$|-2| + 13$$

↓

$$2 + 13$$

$$15$$

2. $16 - |8 + 9|$

$$16 - 15$$

↓

$$16 - 5$$

$$11$$

Solve each equation. Then graph the solution set.

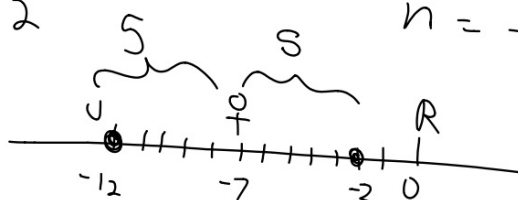
4. $|n + 7| = 5$

5. $|3z - 3| = 9$

$$\begin{array}{rcl} n + 7 & = & -5 \\ -7 & & -7 \\ \hline n & = & -12 \end{array}$$

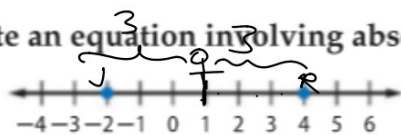
$$\begin{array}{rcl} n + 7 & = & 5 \\ -7 & & -7 \\ \hline n & = & -2 \end{array}$$

$$\frac{-12 + -2}{2}$$



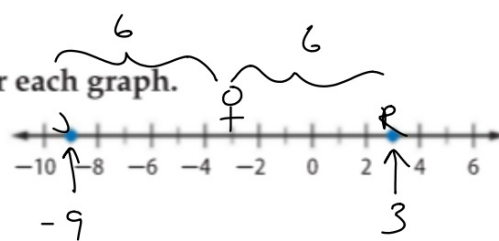
Write an equation involving absolute value for each graph.

11.



$$|k - 1| = 3$$

12.



$$|k - 3| = 6$$

$$= -20$$

$$= 20$$

Solve each equation. Then graph the solution set.

$$22. |n - 3| = 5$$

$$23. |f + 10| = 1$$

$$25. |4t - 8| = 20$$

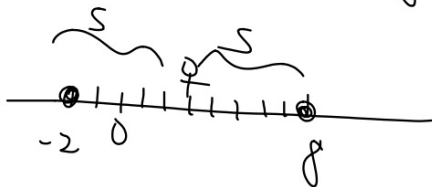
$$26. |8w + 5| = 21$$

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

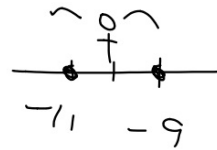
$$n = -2$$

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

$$n = 8$$



$$f + 10 = -1 \quad f + 10 = 1$$



$$| \quad | = -5$$

nope

NS

