

# JANUARY 6, 2015<sup>4<sup>th</sup></sup>

## STARTER

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Solve each equation for the given variable.

$$n + 2 = -1$$

$$-2 = 3 - u$$

$$4 = w - (-2)$$

## 1/6 Solving One-Step Add/Subtract Inequalities

*Solve all three basically the same way...*

- *find the center*
- *find the number with the variable*
- *"undo" it to solve for the variable*

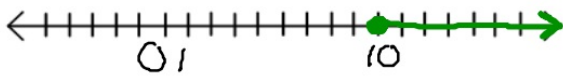
$$\begin{array}{r} \textcircled{x} + 5 = 2 \\ -5 \quad | \quad -5 \\ \hline x = -3 \end{array}$$

$$\begin{array}{r} x + 5 < 2 \\ -5 \quad | \quad -5 \\ \hline x < -3 \end{array}$$

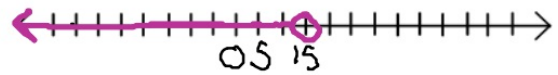
$$\begin{array}{r} x + 5 \geq 2 \\ -5 \quad | \quad -5 \\ \hline x \geq -3 \end{array}$$

Solve each then graph the answers on a number line.

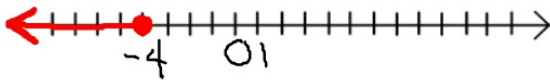
$$\begin{aligned}x - 15 &\geq -5 \\+15 & \quad +15 \\ \hline x &\geq 10\end{aligned}$$



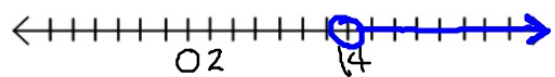
$$\begin{aligned}10 &> v - 5 \\+5 & \quad +5 \\ \hline 15 &> v \\ v &< 15\end{aligned}$$



$$\begin{aligned}8 + h &\leq 4 \\-8 & \quad -8 \\ \hline h &\leq -4\end{aligned}$$



$$\begin{aligned}-3 &< p + (-17) \\+17 & \quad +17 \\ \hline 14 &< p \\ p &> 14\end{aligned}$$

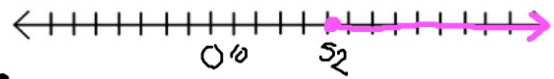


Solve each then graph the answers on a number line.

$$\begin{aligned}
 -x &< 3 \\
 -x - 3 &< 0 \\
 -3 &< x \\
 x &> -3
 \end{aligned}$$

proof of why to change

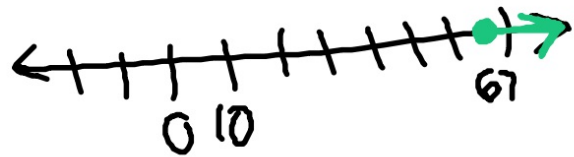
$$\begin{aligned}
 79 - y &\leq 27 \\
 -y &\leq -52 \\
 y &\geq 52
 \end{aligned}$$



$$\begin{aligned}
 47 &> w + (-20) \\
 27 &> w \\
 w &< 27
 \end{aligned}$$



$$\begin{aligned}
 -24 &\geq 43 - u \\
 -67 &\geq -u \\
 -u &\leq -67 \\
 u &\geq 67
 \end{aligned}$$



HOMework

Lilac WS2

DUe Wednesday