

JANUARY 6, 2015 ^{1st} _{2nd}

STARTER

Steve and Jim were walking home from school carrying their books they needed for homework. Steve complained that his books were too heavy. Jim said, "I don't know what you're complaining about. If you gave me one of your books, I'd have twice as many as you'd have. If I gave you just one of mine, we'd have the same number."

How many books were they each carrying?



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*

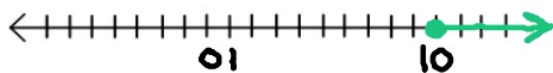
$$\begin{array}{r} x + 5 = 2 \\ -5 \quad -5 \\ \hline x = -3 \end{array}$$

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

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

Solve each then graph the answers on a number line.

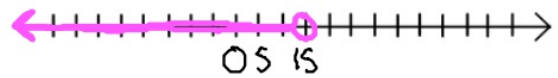
$$\begin{aligned} x - 15 &\geq -5 \\ +15 & \quad +15 \\ \hline x &\geq 10 \end{aligned}$$



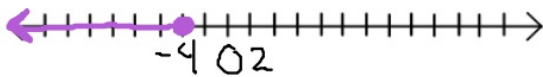
$$\begin{aligned} 10 &> v - 5 \\ +5 & \quad +5 \end{aligned}$$

$$\begin{aligned} 15 &> v \\ v &< 15 \end{aligned}$$

Switch sides
to get the
variable
first.

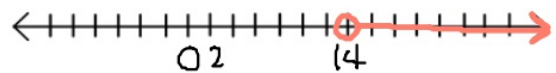


$$\begin{aligned} 8 + h &\leq 4 \\ -8 & \quad -8 \\ \hline h &\leq -4 \end{aligned}$$



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

$$\begin{aligned} 14 &< p \\ p &> 14 \end{aligned}$$



Solve each then graph the answers on a number line.

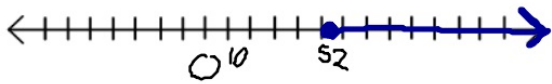
$$79 - y \leq 27$$

-79

Flip 3 signs

$$+y \leq +52$$

$$y \geq 52$$



~~$$-x < 4$$~~

$$-x - 4 < 0$$

$+x$ $+x$

$$-4 < x$$

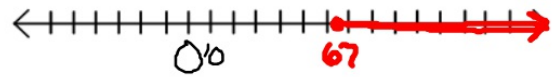
$$-24 \geq 43 - u$$

-43 -43

$$-67 \geq -u$$

$$67 \leq u$$

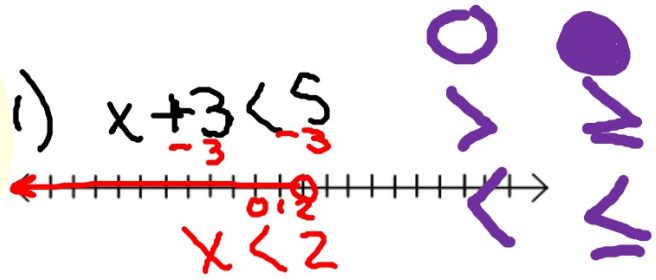
$$u \geq 67$$



HOMWORK

Yellow W2

1) $x + 3 < 5$
 $-3 \quad -3$
 $x < 2$



DUE

Wednesday