Unit 6: Inequalities Name: Key

Lesson 2: Solving One-Step Inequalities with Multiplication & Division Hour:

Notes 6.2

LOOK OUT for the Negatives

Example: $\frac{x}{-2} > 8$

x = 2? $\frac{2}{-2} > 8$ $-1 < 8$

x = 4? $\frac{4}{-2} > 4$ $-2 < 4$

x = -2? $\frac{-2}{-2} > 8$ $1 < 8$

x = -4? $\frac{-4}{-2} > 8$ $2 < 8$

* If you multiply or divide by a negative number, you must CHANGE the sign! *

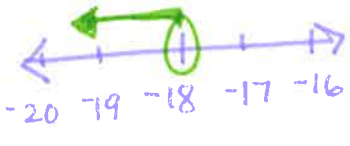
Solving an Inequality and Graphing the Solution

*Identify the problems that require a sign Change first.

Solve each inequality and graph the solution.

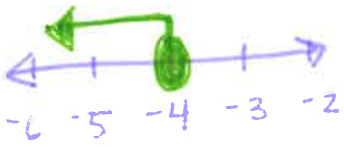
1. $\frac{a}{2} < -9$ (2)

$a < -18$



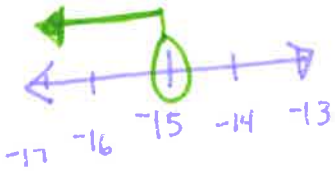
2. $\frac{-8t}{-8} \geq \frac{32}{-8}$

$t \leq -4$



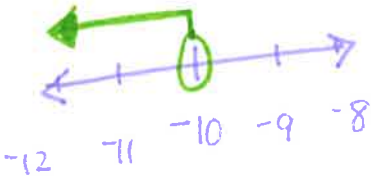
3. $\frac{4m}{4} < \frac{-60}{4}$

$m < -15$



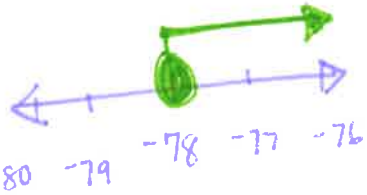
4. $-2 > \frac{v}{5}$ (5)

$-10 > v$



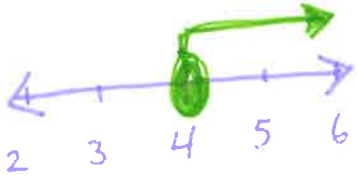
5. $\frac{h}{-6} \leq 13$ (-6)

$h \geq -78$



6. $\frac{-48}{-12} \geq \frac{-12x}{-12}$

$4 \leq x$



Homework: Why Did the Little Leaguer Chase His Sister? wkst.

Adapted: