T-A1 Algebra 1 Week 15

3-4 Solving Multi-step Inequalities

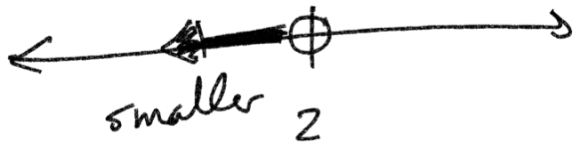
$4x + 3 < 11$

$-3 \quad -3$

$\frac{4x}{4} < \frac{8}{4}$

$x < 2$

smaller bigger



smaller 2

$4x + 3 = 11$

$-3 \quad -3$

$\frac{4x}{4} = \frac{8}{4}$

$x = 2$

$3x + 2 < 2x + 5$

$-2x \qquad -2x$

$x + 2 < 5$

$-2 \quad -2$

$x < 3$

$3x + 2 = 2x + 5$

3

$3x + 8 < 3x + 2$

$-3x \qquad -3x$

$8 < 2$ false

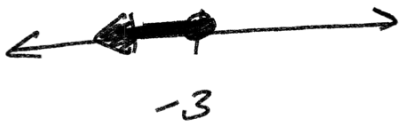
no solution

$-4x + 5 \geq 17$
$-5 \quad -5$

$-4x \geq 12$
$\frac{-4}{-4} \quad \frac{}{-4}$ flip

$x \leq -3$

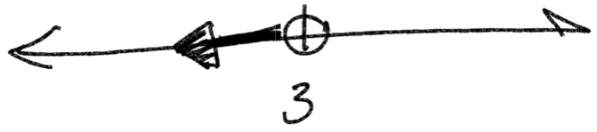
$-4x + 5 = 17$
$-5 \quad -5$



$2z + 7 < z + 10$
$-7 \quad -7$

$2z < z + 3$
$-z \quad -z$

$\boxed{z < 3}$



$4(k-1) > 4$

$4k - 4 > 4$
$+4 \quad +4$

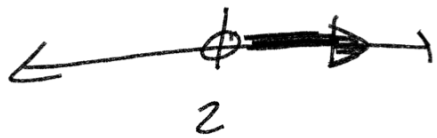
$\frac{4k}{4} > \frac{8}{4}$

$k > 2$

$\frac{4(k-1)}{4} > \frac{4}{4}$

$k - 1 > 1$
$+1 \quad +1$

$k > 2$



$h + 2(3h + 4) \geq 1$

$h + 6h + 8 \geq 1$

$7h + 8 \geq 1$
$-8 \quad -8$

$\frac{7h}{7} \geq \frac{-7}{7}$

$\boxed{h} \geq -1$

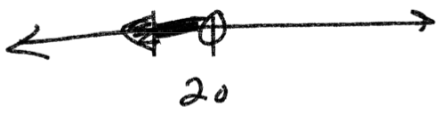
$\boxed{6u} - 18 \boxed{-4u} < 22$

$2u - 18 = 22$
$+18 \quad +18$

$2u - 18 < 22$
$+18 \quad +18$

$\frac{2u}{2} < \frac{40}{2}$

$u < 20$



3.5 Compound Inequalities

$-3 \leq x - 5$ or $x + 5 \leq 2$

$+5 \quad +5$ $\quad -5 \quad -5$

$2 \leq x$ $\quad x \leq -3$

"or" means divergent

$x - 2 \geq -6$ and $5 + x < 7$

$+2 \quad +2$ $\quad -5 \quad -5$

$x \geq -4$ $\quad x < 2$

"and" convergent

$-3 \leq x + 1 < 3$

$-1 \quad -1 \quad -1$

$\boxed{-4 \leq x < 2}$

$-3 \leq x + 1$

$-1 \quad -1$

$\boxed{-4 \leq x}$

$x + 1 < 3$

$-1 \quad -1$

$\boxed{x < 2}$

HW

ch 3.4 evens

ch 3.5 pg 41 2-12 evens

Supplemental WS (3.4)

Online HW 15 & Jan 26th

Quiz 15

(3.4)

HW/Quiz 13 due tonight

No HW/Quiz 14