March-27-15   8:37 AM

Ⓐ Background

less greater equal
$<$ $>$ $=$

i) $-2 > -6$

ii) $13 < 15$

iii) $-5 < 0$

iv) $-(-2) = 2$

Ⓑ Solve Inequalities

ex 1) $\dfrac{2x}{2} < \dfrac{10}{2}$

$\boxed{x < 5}$ ✓

if $\dfrac{2x}{2} = \dfrac{10}{2}$

$\boxed{x = 5}$

open dot b/c $<$ or $>$

ex 2) $\dfrac{3x}{3} > \dfrac{12}{3}$

$\boxed{x \geq 4}$ ✓

closed dot b/c $\leq$ or $\geq$

ex 3) $18 \geq \overset{-10}{10} + 4x$

$\dfrac{8}{4} \geq \dfrac{4x}{4}$
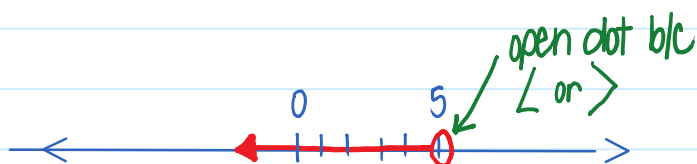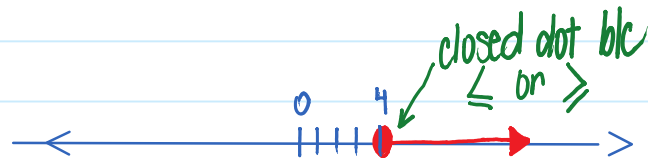
$\boxed{2 \geq x}$ OR $\boxed{x \leq 2}$ ✓

ex 4) $2(x-3) > 4x + 2$

$2x - 6 > 4x + 2$

$-2x - 6 > 2$
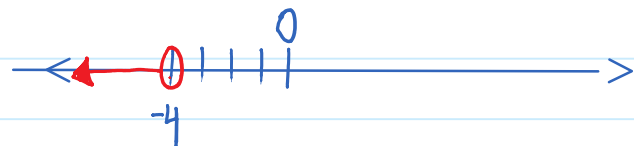
$-2x > 8$

STOP!! Something happens to inequality when you divide both sides by a negative integer!... YOU FLIP THE SIGN!
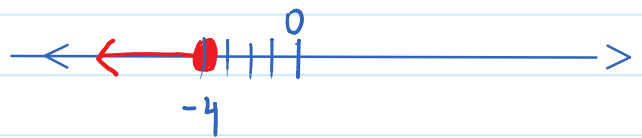
$$\frac{-2x}{-2} > \frac{8}{-2}$$

(FLIP IT)

$$\boxed{x < -4} \checkmark$$

ex 5) $-3x > 12$

$$\frac{-3x}{-3} > \frac{12}{-3}$$

$$\boxed{x < -4} \checkmark$$

-4

Assignment: U4 extension (LI) #3,7,11,17,20,24,31,37,41,45,50,55,60,65,70

/15 mks