

b.2 Solving Inequalities April 17, 2007
w/ Multiplication + Division New sheet of Paper

Review:

$$\frac{5a}{5} = \frac{20}{5}$$

$$\underline{a = 4}$$

$$\frac{5a}{5} < \frac{20}{5}$$

$$\underline{a < 4}$$

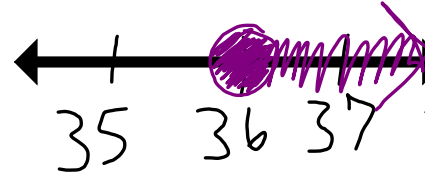


$$4 \cdot \frac{b}{4} = 9.4$$

$$b = 36$$

$$4 \cdot \frac{b}{4} \geq 9.4$$

$$b \geq 36$$



Check 40:

$$\frac{40}{4} \geq 9$$

$$10 \geq 9$$

Review:

$$\frac{-4c}{-4} = \frac{32}{-4}$$

$$\underline{\underline{c = -8}}$$

$$\frac{-4c}{-4} > \frac{32}{-4}$$

$$c < -8$$



Check 0

$$\frac{-4(0)}{-4} > 32$$

$$0 > 32$$

This did Not work

.

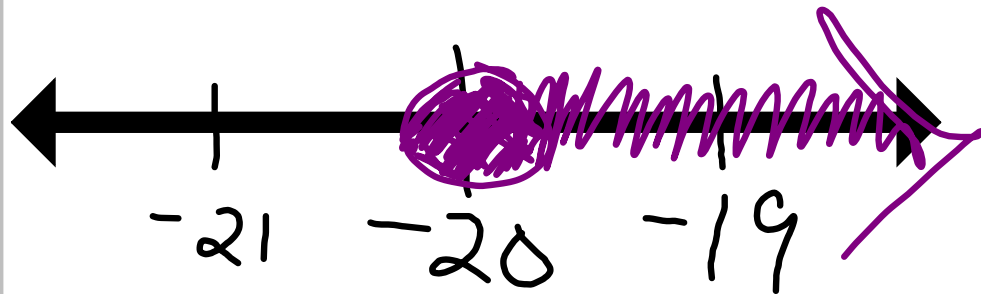
Conclusion:

If we need to Multiply
or Divide by a Neg. #
to Solve the Inequality
Then we **MUST** Switch
the Inequality Sign!

$$-\frac{2}{1} \left(-\frac{1}{2} x \right) \leq (10) - \frac{2}{1}$$

$$x \geq -20$$

Do this 1st
since we * by
-1



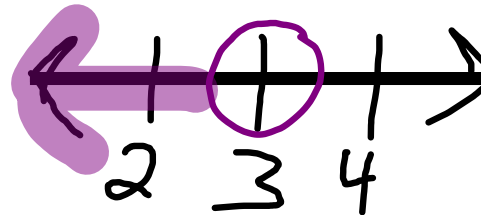
Check 0; it
should work

$$-\frac{1}{2} (0) \leq 10$$

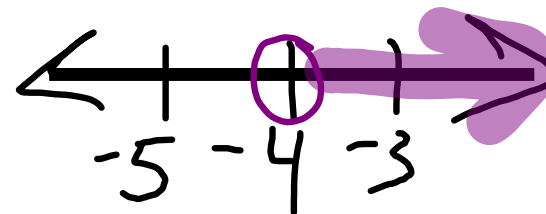
$$\underline{\underline{0 \leq 10}}$$

Conclusions

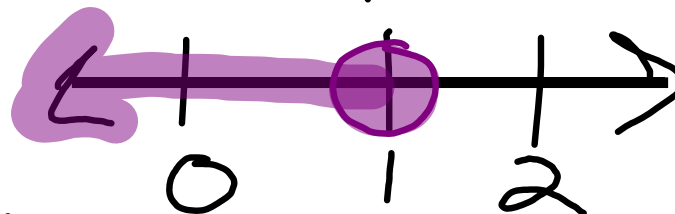
$x < 3$ All $\mathbb{R}$ less 3



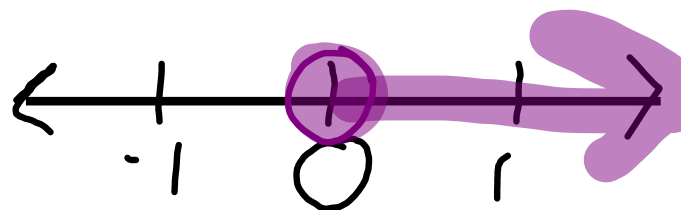
$a > -4$ All $\mathbb{R}$ greater than -4



$b \leq 1$ All $\mathbb{R}$ less than or equal to 1



$c \geq 0$ All $\mathbb{R}$ greater than or equal to 0



O.T.L.

① pg 326-327:

From
Yesterday

3, 6, 10, 12, 16, 24-28 (e)

41, 44, 50, 54

Today

② pg 332: Summary Box
at the Bottom of the Page.
in Notes

③ pg 333: 15-31 (o)
Show Work.