

What Happened??

(On Document Camera)

Homework Questions?

Self Scoring Scale

4- I can *summarize* the concepts and explain it to others.

3- I can *apply* the concepts to answer questions correctly.

2- I can *apply* the concepts but with some *mistakes*.

1- I *need help* to know how to apply the concepts.

0- I *can't* apply the concepts even with help.

6.1-6.2 Quiz

Out of 30 points

A- 27

B- 24

C- 21

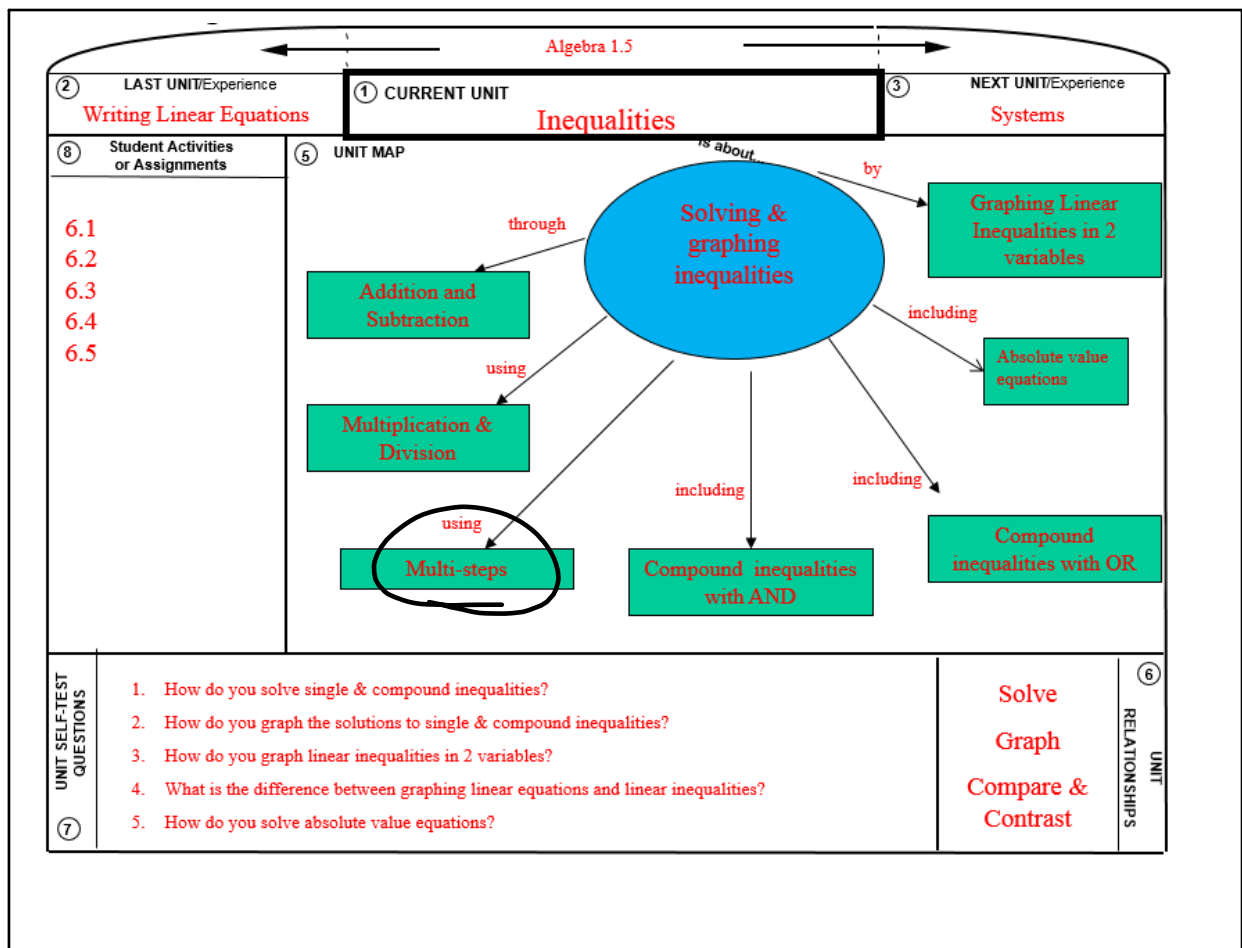
D- 18

6.3 Solving Multi-Step Inequalities

Goals:

- Solve multi-step inequalities in one variable.

EQ: What is the difference between solving multi-step equations and inequalities?

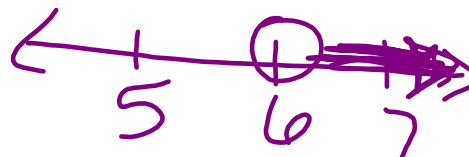


Example 1: Solve a Multi-Step InequalitySolve $3x - 8 > 10$.

$$+8 \quad +8$$

$$\frac{3x}{3} > \frac{18}{3}$$

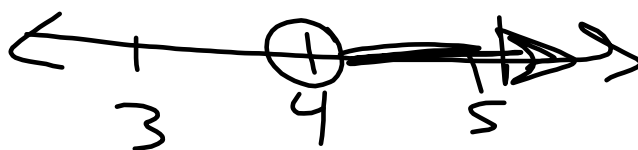
$$x > 6$$

**Example 2: Solve a Multi-Step Inequality**Solve $12 - 5y < -8$.

$$-12 \quad -12$$

$$\frac{-5y}{-5} < \frac{-20}{-5}$$

$$y > 4$$



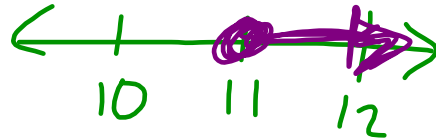
Example 3: Use the Distributive PropertySolve $4(x - 3) \geq 32$.

$$4x - 12 \geq 32$$

$$\begin{array}{r} +12 \\ \hline 4x \geq 44 \end{array}$$

$$\begin{array}{r} 4x \geq 44 \\ \hline x \geq 11 \end{array}$$

$$x \geq 11$$

**Example 4: Collect Variable Terms**Solve $5 - 6x \leq 9 + 2x$.

$$5 - 6x \leq 9 + 2x$$

$$\begin{array}{r} -2x \\ \hline 5 - 8x \leq 9 \end{array}$$

$$\begin{array}{r} -5 \\ \hline -8x \leq 4 \end{array}$$

$$\begin{array}{r} -8x \leq 4 \\ \hline -8 \quad -8 \end{array}$$

$$x \geq -\frac{1}{2}$$



Try It Solve the inequality and graph.

1) $9 \geq -7 - 4k$

$$\begin{array}{r} +7 \quad \uparrow \\ 16 \geq -4k \\ \hline -4 \quad \quad -4 \end{array}$$

$$-4 \leq k$$

$$k \geq -4$$

2) $7t + 4 < -10$

$$\begin{array}{r} -4 \quad -4 \\ 7t < -14 \\ \hline 7 \quad 7 \end{array}$$

$$t < -2$$

3) $-3(x + 4) \leq 9$

$$\begin{array}{r} -3x - 12 \leq 9 \\ +12 \quad +12 \\ \hline -3x \leq 21 \\ \hline -3 \quad -3 \end{array}$$

$$x \geq -7$$



4) $14 - y > 4y - 11$

$$\begin{array}{r} -4y \quad -4y \\ 14 - 5y > -11 \\ -14 \quad -14 \\ \hline -5y > -25 \\ \hline -5 \quad -5 \end{array}$$

$$y < 5$$



Summary

EQ: What is the difference between solving multi-step equations and inequalities?

6.3 Homework

p.339 #20-40even (Graph)

& Pizzazz wkst (p.222/223)