September 8, 2011

70ts total

Warm-Up:

Solve each:

1.
$$3m-9=12$$

2.
$$3x + 2 = 5x - 8$$

3.
$$4(2b-1) = 9-3b$$

4. What is the definition of a solution to a linear equation? b = 1

Homework Question

9/7 - Solving Linear Inequalities

What is the definition of a solution to a linear inequality?

whatever makes the statement true inequality infinite # of answers

Which of the transformations can be used in solving a linear inequality while maintaining equivalence?

Transformations:

- . Add the same number to both sides
- ✓2. Subtract the same number from both sides
- 3. Multiply both sides by the same number
- 4. Divide both sides by the same number
- √5. Simplify one or both sides
- ★ 6. Interchange sides

If you multiply both sides by a neg #. Airthe inequal or divide liver sides, flip the inequality sign

$$8a - 3 \le 23 - 5a$$
 $+5a$
 $+5a$
 $+3$
 $+3$
 $+3$
 $13a \le 26$
 $13x$
 $a \le 2$



3-part inequalities are called:

--> Conjunctions

--> "And" statements

**All 3 parts MUST be worked at the same time! **

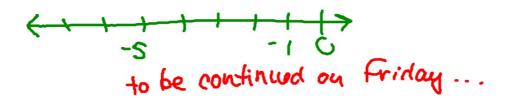


$$5-9x < 14$$
 or $-4x-17 > 3$
 $-9x < 9$ $-4x > 20$
 $-4x > 4$
 $-4x > 20$
 $-4x > 5$

Inequalities that have 2 sections separated by the word "or" are called:
--> Disjunctions

- --> "or" statements

Both parts must be worked separately but graphed together.



$$2n-3 \ge 9 \text{ or } 5-n < 4$$

Homework:

page 41 #21-38 all

Due tomorrow