ALGEBRA II
Chapter 1 section 6
Solve Linear Inequalities
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FOCUS:
How are the rules for solving linear inequalities similar to those for solving linear equations, and how are they different?

VOCAB:
Linear Inequality: _____

_____

Compound Inequality: _____

Equivalent Inequalities: _____

WARM – UP:

Solve the equation.

1. $0.4x + 1.5 = 0.6x + 3$ _____

2. $5(x - 8) = 9x + 20$ _____

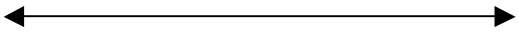
3. Solve the equation $440 = C + 200$ for r after using the formula $C = 2\pi r$ to substitute for C.

_____

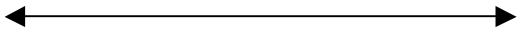
NOTES:

Graph on a number line.

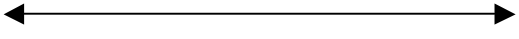
$x > -3$



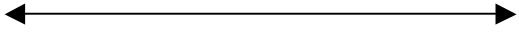
$x \leq 0$



$-2 \leq x < 3$



$x < -1$ or $x \geq 1$



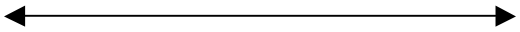
You have budgeted $66 a month to spend on yoga classes. Your yoga studio charges a $22 per month membership fee, plus 5.50 per class attended. Describe the possible number of classes you can attend each month.

Solve and graph on a number line.

$4x + 3 \leq 6x - 5$

$-10 < 3x + 5 \leq 8$

$2x - 1 \leq -7$ or $4x + 3 \geq 7$



In Illinois, the lowest temperature on record is -36ºF in January, 1999, in Congerville, while the highest temperature on record is 117ºF in July, 1954, in East St. Louis. Write the range of temperatures as an inequality. Then write an inequality giving the temperature range in degrees Celsius.

Let's see if you comprehended what we worked on in class…

Try _____ for homework