

Name: _____

Hour: _____

Chapter 2/3

Equations & Inequalities

GAGA

=

**$(RAH)^2(AH)^3 +$
 **$[ROMA(1 + MA)] +$
 $(GA)^2 + (OOH)(LA)^2$****

Lesson 2-3: Two-Step & Multi-Step Equations

Pick three problems from “Two-Step Equations” worksheet to work out as a class below. Show all work and check your answer for each problem!

Lesson 2-4: Variables on Both Sides

Pick three problems from “Multi-Step Equations” worksheet to work out as a class below. Show all work and check your answer for each problem!

Lesson 2-5: Solving for a Variable

To solve for a given variable, you should be able to _____ the given variable.

It's just like equation solving...

Practice

Solve for x in the given equation.

1. $3x + 1 = 25$

2. $3x + y = z$

3. Solve the formula $d = r \cdot t$ for t .

4. Pierre lives in New Orleans, where he measures the temperature using the Fahrenheit scale. When he visited his cousin Rae in Montreal, Canada, he found that temperature was reported in degrees Celsius. Because Celsius temperature readings didn't mean much to him, Pierre converted temperatures Celsius C to Fahrenheit F using this formula: $F = 32 + 1.8C$. Rae visited Pierre the following summer. Rewrite the formula so she can use it to convert degrees Fahrenheit to Celsius.

5. Solve the equation $A = \frac{1}{2} \cdot b \cdot h$ for b .

6. Solve the equation $A = \frac{1}{2} \cdot h \cdot (b_1 + b_2)$ for b_1 .

7. The formula for a person's typing speed is shown below, where s is speed in words per minute, w is the number of words typed, e is the number of errors, and m is the number of minutes typing. Solve for e .

$$s = \frac{w - 10e}{m}$$

Lesson 3-1: Graphing & Writing Inequalities

Vocabulary

Inequality: _____

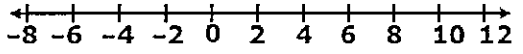
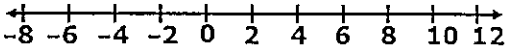
Quantities are compared using the following signs...

	<	>	≤	≥	≠
Example					
Words					

Solution of an Inequality: _____

An inequality like $3 + x < 9$ has too many solutions to list. You can use a graph on a number line to show all of the solutions to an inequality.

The solutions are _____ and an arrow shows that the solutions continue past those shown on the graph.

	●	○
Example		
Words		

“No more than” means _____

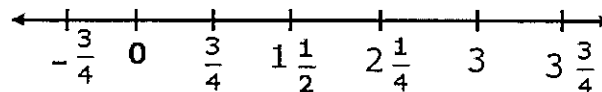
“At least” means _____

Words	Algebra	Graph
All real numbers less than 5		
All real numbers greater than -1		
All real numbers less than or equal to $\frac{1}{2}$		
All real numbers greater than or equal to 0		

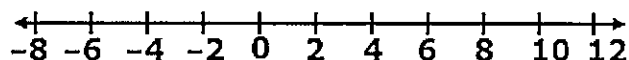
Practice

Graph the following inequalities.

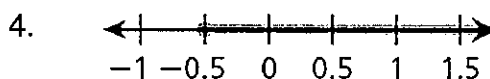
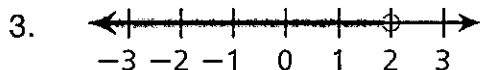
1. $m \geq \frac{3}{4}$



2. $t < 5(-1 + 3)$



Write the inequality shown by each graph.



5. Ray's dad told him not to turn on the AC unless the temperature was at least 85°F. Write an inequality for the temperatures at which Ray can turn on the AC. Graph the solutions.

Lesson 3-4: Two-Step & Multi-Step Inequalities

Pick three problems from “Two-Step Equations” worksheet to work out as a class below. Show all work and check your answer for each problem!

Lesson 3-5: Variables on Both Sides of Inequalities

Pick three problems from “Multi-Step Equations” worksheet to work out as a class below. Show all work and check your answer for each problem!