


# ALGEBRA

September 26-30

- ☐ Monday, September 26, 2011
  - ☐ SW review how to graph points on a coordinate plane
1. SW complete review quiz
  2. CW review coordinate system terminology and work through various examples
  3. SW complete class work
  4. SW begin working on homework with a partner

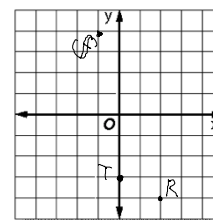
- ☐ Coordinate System: used to locate points  
number line, coordinate planes
- ☐ Origin: where the  $x$  and  $y$ -axis intersect  
  $(0,0)$
- ☐ X-axis  
The horizontal number line
- ☐ Y-axis  
The vertical number line

- ☐ Ordered pair: used to locate a point  
on coordinate plane
- ☐ X-coordinate: the first term in the  
ordered pair. Found on the  $x$ -axis
- ☐ Y-coordinate: the second term in the  
ordered pair. Found on the  $y$ -axis

- 59
- ☐ Look at the graph on Page 57 to answer questions.
  - ☐ a) D  $(3, 2)$
  - ☐ b) E  $(3, -3)$
  - ☐ c) F  $(-1, -3)$
  - ☐ d) G  $(-4, 0)$
- 1) Start at the origin
  - 2) Find  $x$   
Move R = +  
or L = -
  - 3) Find  $y$   
Move Up = +  
or Down = -
  - 4) Coordinates always go in parenthesis

- ☐ Graph the following points.

- ☐ e) R  $(2, -4)$
  - ☐ f) S  $(-1, 4)$
  - ☐ g) T  $(0, -3)$
- 1) Origin
  - 2) 1st Term  
+ = R  
- = L
  - 3) 2nd term  
+ = ↑  
- = ↓



- Quadrants: Divides coord. plane into 4 parts. I, II, III, IV
- h) C(-2, -7) III
- i) D(-4, 9) II
- j) E(0, -3) none

Anytime  
x or y = 0  
quadrant is none

- Class work: Page 61; 1-10 all
- Homework: Page 62; 14-36 all  
Read and take notes pages 64-67

- Tuesday, September 27, 2011
- SW learn to add integers with the same and different signs.

$| -3 | = 3$   
 $| 3 | = 3$

- SW complete review quiz
- CW review notes on adding integers and working with absolute value with integers
- SW complete class work
- SW begin working on homework

Integers: whole numbers & their opposites  
Absolute Value: how far a number is from zero / always positive

- Adding integers with the same sign:  
Add their absolute values, keep sign

→ Same sign find the sum (+) & keep the sign

- $8 + 9 = 17$

- $-2 + (-4) = -6$   
 $2 + 4 = 6$
- If adding neg go left
- If adding pos go right
- $-5 + (-10) = -15$   
 $5 + 10 = 15$

- Additive Inverse: when you add a number & its opposite = 0  
 $-6 + 6 = 0$  &  $3 + (-3) = 0$
- Adding integers with different signs you subtract their absolute values & keep sign of higher abs. value.

- $4 + (-6) = -2$   
 $4 - 6 = 6 - 4 = 2$

- $-7 + 1 = -6$   
 $7 - 1 = 6$
- $8 + (-2) = 6$   
 $8 - 2 = 6$

- Simplifying algebraic expressions:  
\* Follow same rules for integers  
- Copy variable

- $-8y + 3y = -5y$   
 $8 - 3 = 5$
- $[6m + 4m] + (-2m) = 8m$  When more than 2 terms group same signs together  
 $10m + (-2m)$
- $-5x + 4x = -1x$  or  $-x$   
 $5 - 4 = 1$

- Class work: Page 68; 1-2 all, 6-20 even
- Homework: Page 68-69; 22-43 every third  
46-56 even

- Wednesday, September 28, 2011
- SW review for test tomorrow on lessons 1.6, 2.1, 2.2, and 2.3
- 1. Complete review
- 2. In Class worksheet
- 3. Homework: Page 46; 34-38 even  
Page 86-87; 12-36 even  
Study

## 1-6 Collecting Data

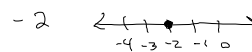
Frequency Table:  
You'll be given data

Title		
Date	Tally	Frequency

## 2-1 Graphing Integers on a number line

Integer: Whole numbers + their opposites

Graph on number line. Graph should contain 5 numbers



Absolute Value: How far a number is from zero on a number line

- Always positive

Inequalities:  $>$ ,  $<$   $|-20| < |22|$   
 $20 \geq 2$

## 2-2 Coordinate Plane

Graph: always start at origin

X-axis:  $\rightarrow + \leftarrow -$

Y-axis  $\uparrow + \downarrow -$

Ordered pairs:  $(x, y)$

Quadrants:  $(-, +)$   $(+, +)$   $A(-3, 4)$   
 $(-, -)$   $(+, -)$   $B(0, 3)$   
 none

## 2-3 Adding Integers

Same Sign: add the absolute values + keep the sign

$$-3 + -8 = 3 + 8 = -11$$

Different Signs: Subtract the absolute values + keep sign of greater absolute value.

$$-7 + 13 = +6$$

$$7 \quad 13$$

$$13 - 7 = 6$$

$$2a. \quad (-22) + 54 = \underline{+32}$$

$$\quad \quad 22 \quad 54$$

$$\quad \quad 54 - 22 = 32$$

$$7a. \quad (-96) + 65 = \underline{-31}$$

$$\quad \quad 96 - 65 = 31$$

- ▣ Thursday, September 29, 2011
- ▣ SW have the entire class period to complete their test.
- ▣ Homework: Finish dictionary project due Monday, October 3. 10% off for each day late.

- ▣ Friday, September 30, 2011
- ▣ SW solve mathematical problems involving powers and exponents.
- ▣ SW read and take notes from course 3 book, pages 20-21

- ▣ Power:
- ▣ Exponent:
- ▣ Base:

- ▣ Write the product as a power.
- ▣  $7 \times 7 \times 7 \times 7 \times 7 \times 7$
- ▣  $10 \cdot 10 \cdot 10 \cdot 10$
- ▣  $w \cdot w$
- ▣ Describe the power in words and then evaluate
- ▣  $6^3$
- ▣  $2^5$

- ▣  $13^2$
- ▣  $3^1$
- ▣ Evaluate the expression
- ▣  $(5 - 2)^3 - 7 + 4$
  
- ▣  $12 + (4 + 2)^2 - 2^4$

- ▣ Class work: Page 22; 1-11 all
- ▣ Homework: Page 22-23 (Course 3 book); 12-28 even, 32-36 even  
Read and take notes from Algebra book, pages 70-72