

Mr. Northcutt's Math Classes Class Presentation

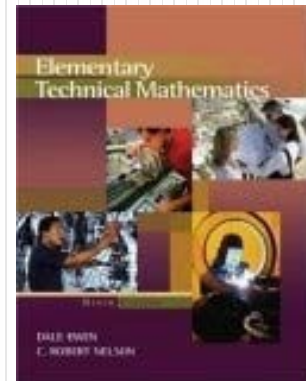
Tuesday, September 16, 2008 (11)



Math 1



Math 2



Applied Math

Math 1 – Daily Summary

- **Announcements**

- Test on Thursday (Section 1-1 thru 1.5)
- Get a Whiteboard!

- **Class Objectives**

- Adding & Subtracting Real Numbers

- **Assignment**

- Lesson 1-5: 4-48 (by 4), 50, 53, 59, 60, 62

HW Solutions 1.4

4: -1

8: 12.14

12: -42

16: 1.33

20: $-6 \frac{1}{8}$

24: $-\frac{13}{14}$

28: 8.7

32: 12.6

36: $-8+c$, -1, -11, 11

42: -2.7

43: -13

44: 6.6

45: $11 \frac{19}{24}$

46: 4

47: $-3 \frac{22}{35}$

48: -18.53

49: -20.83

50: -1.72

51: $-\frac{17}{60}$

52: $-5 \frac{11}{120}$

53: 0.8

54: $4 \frac{1}{3}$

76: +2

79: NO

81: \$7

92: $(-3m+1)/4$

Warm-Up/Review (Whiteboards)

$$-3 + (-5)$$

$$3 + 2(2^3)$$

$$-|(5 - 9)|$$

$$|-3| + (-4) + 3$$

$$\frac{1}{3} + \left(-\frac{1}{4}\right) + \frac{1}{5}$$

$$[-2 + (-(20 - 2^4))] \div 6$$

Subtraction with Real Numbers

- **Properties**

- To subtract a number, add its opposite.

Use Algebra
Tiles to
Demonstrate

$$3 - 5 = 3 + (-5) = -2 \quad 3 - (-5) = 3 + 5 = 8$$

- **Practice**

$$-4 - (-9) = \frac{3}{4} - \left(-\frac{11}{12}\right) \quad -a - b = \quad (\text{when } a = -3, b = -5)$$

Math 2 – Daily Summary

- **Announcements**

- **Geometry** starts today...and you will need your Inductive Reasoning skills the rest of the way!
- Notebook is Critical
 - Add Definitions & Conjectures
 - Draw Examples

- **Class Objectives**

- Chapter 1 Test Review
- Geometry: Terms, Definitions & Symbols

- **Assignment**

- Lesson 2.1: 2-40 EVEN

The Building Blocks

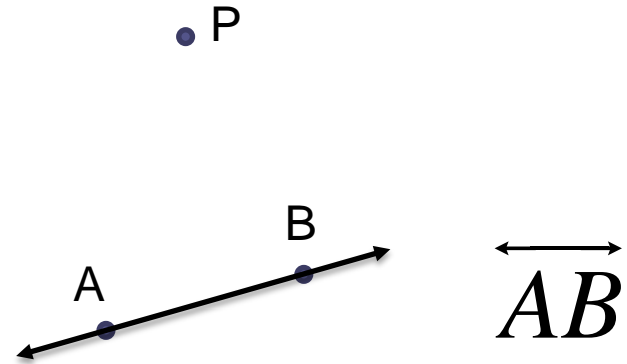
- **The Building Blocks of Geometry:**

- **Point:**

- Basic unit.
- It has no size and is infinitely small.

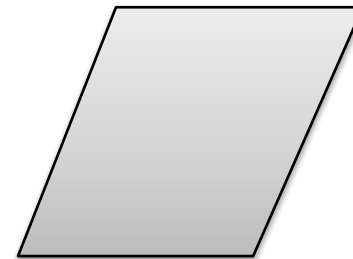
- **Line:**

- A straight arrangement of points.
- Infinitely many points on a line.
- Infinite length...extends forever in two directions.
- Name with two points on the line.



- **Plane:**

- Has length and width but no thickness.
- A flat surface that extends forever.
- Represent with a 4-sided figure



Definitions

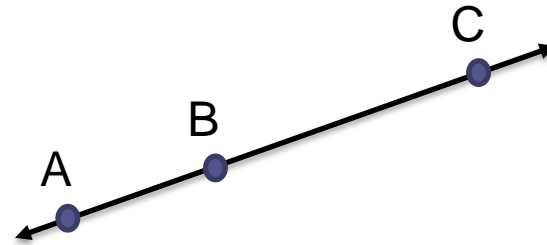
- **Definition:** A statement that clarifies or explains the meaning of a word or a phrase.
- Point, Line and Plane are undefined...we only described them.
- *Using Point, Line and Plane we can define (formally) new geometric figures and terms.*

Put new Definitions and Illustrations/Sketches of the definition in your Notebook!

Collinear Points & Coplanar Points

- **Collinear Points**

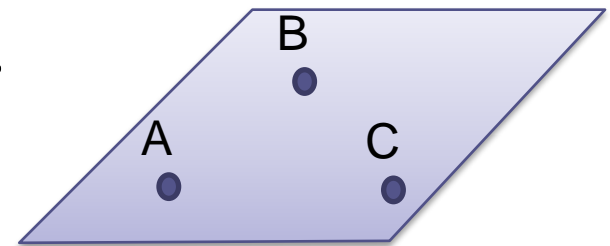
- Points that lie on the same line.



“A, B, and C are collinear points.”

- **Coplanar Points**

- Points that lie on the same _____.



“A, B, and C are coplanar points.”

Space, Line Segment & Ray

- **Space**

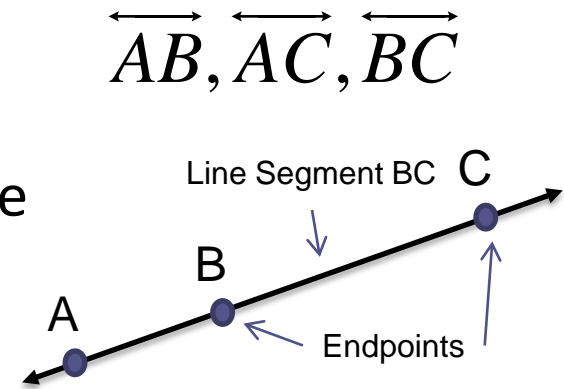
- The set of **ALL** points.

- **Line Segment (& Endpoints)**

- Two points (called endpoints) and all of the points between them that lie on the line containing the two points.

- **Ray**

- The part of line AB that contains point A and all the points on line AB that are on same side of point A as point B.



$\overleftrightarrow{AB}, \overleftrightarrow{AC}, \overleftrightarrow{BC}$

$\overline{AB}, \overline{BC}, \overline{AC}$

$\overrightarrow{AB}, \overrightarrow{AC}, \overrightarrow{BC}, \overrightarrow{CA}, \overrightarrow{BA}$

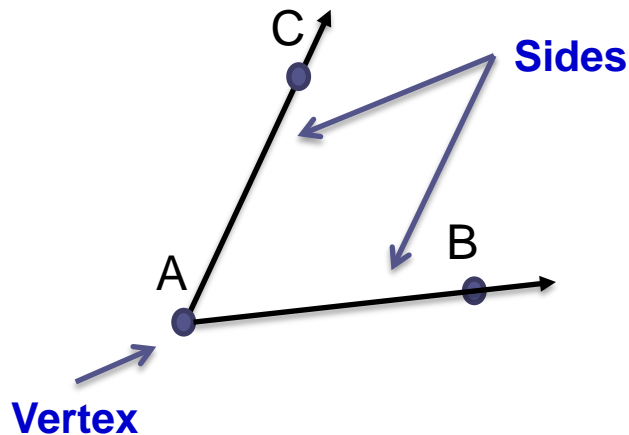
Not the Same!

Angle

Notice that we are building New Definitions using previous definitions.

- **Angle**

- Two rays that share a common endpoint, provided the two rays do not lie on the same line.



Sides = _____

Vertex = _____

Name an Angle with 3 Points with vertex as middle point.

Angle CAB or Angle BAC

$\angle BAC$ $\angle CAB$

Applied Math – Daily Summary

- **Announcements**

- Quiz 1.1 thru 1.9 on Thursday

- **Class Objectives**

- Multiplying & Dividing Fractions

- **Assignment**

- **Lesson 1.8:** 3, 11, 15, 18, 29, 39, 50, 51, 56, 77, 81

HW Solutions 1.7

2: 105

5: 48

13: $29/64$

17: $1 \frac{3}{10}$

28: $5/48$

35: $2 \frac{5}{8}$

39: $2 \frac{5}{16}$

51: $35 \frac{11}{20}$ gal

55: $5/6$ h

58: $142 \frac{23}{24}$ oz

61: a. $1 \frac{1}{2}$ in b. $22 \frac{23}{64}$ in

75: $14 \frac{3}{8}$ in

81: $10 \frac{13}{16}$ in; $3 \frac{3}{4}$ in

Multiplying and Dividing Fractions

Multiplication

$$\frac{a}{b} \cdot \frac{c}{d} = \frac{ac}{bd}$$

Division

$$\frac{a}{b} \div \frac{c}{d} = \frac{a}{b} \cdot \frac{d}{c} = \frac{ad}{bc}$$

*Multiply by the
Reciprocal!*

$$\frac{18}{25} \cdot \frac{7}{27} = \frac{126}{675} = \frac{42}{225} = \frac{14}{75}$$

$$\frac{18}{25} \cdot \frac{7}{27} =$$

What is the shortcut?

Practice

- **Simplify:**

$$\frac{2}{7} \cdot \frac{5}{9} \cdot \frac{3}{10} \div 6$$

$$3\frac{1}{2} \cdot \frac{2}{5}$$

Practice

- **A concrete pad for mounting an air conditioner is 4 ft long, $2\frac{2}{3}$ ft wide, and 3 in thick. Find its volume in cubic feet.**