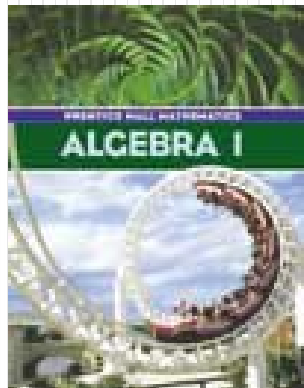


# Mr. Northcutt's Math Classes Class Presentation

Thursday, September 18, 2008 (13)



Math 1



Math 2



Applied Math

# Math 1 – Daily Summary

- **Announcements**

- Quiz Today(Section 1-1 thru 1.5)

- **Class Objectives**

- Quiz
- Math/Logic Games on Computer (Quietly!)

- **Assignment**

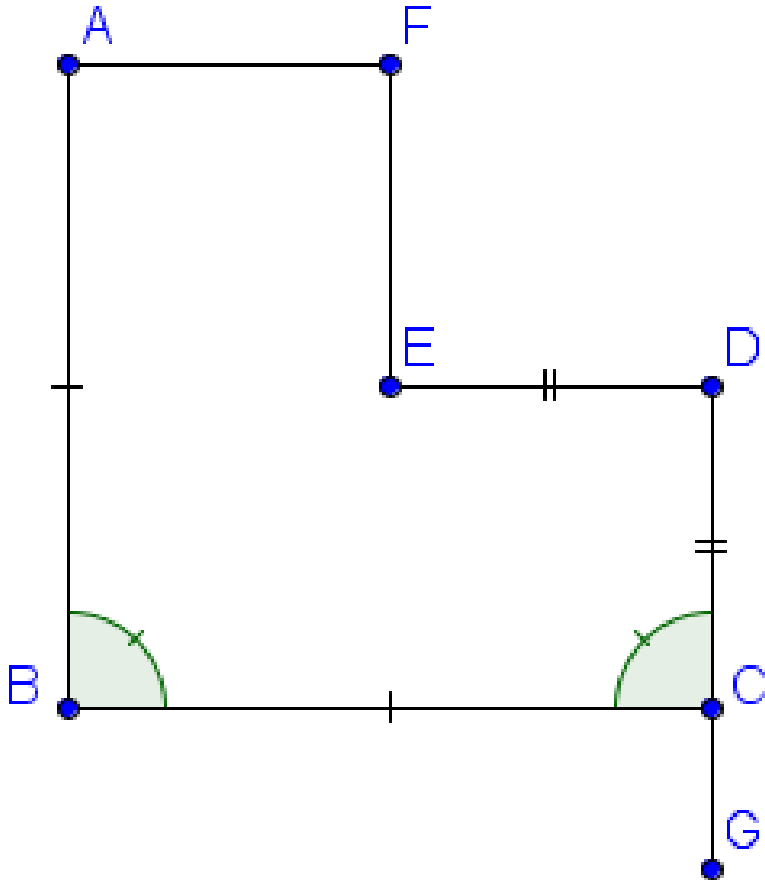
- No HW

# Math 2 – Daily Summary

- **Announcements**
  - Quiz on Tuesday (Lessons 2.1 thru 2.3)
- **Class Objectives**
  - Classification & Definitions
  - Conditional Statements
  - Counterexamples
- **Assignment**
  - Lesson 2.3: 1-16

# Review: Measure, Congruence, Marks

- Find the missing information.



$$\overline{BC} \cong \underline{\hspace{2cm}}$$

$$ED = \underline{\hspace{2cm}}$$

$$m\angle B = \underline{\hspace{2cm}}$$

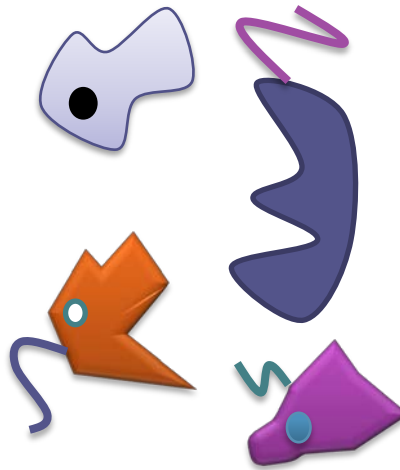
# What Makes a GOOD Definition?

- **Two Steps to Defining an Object**

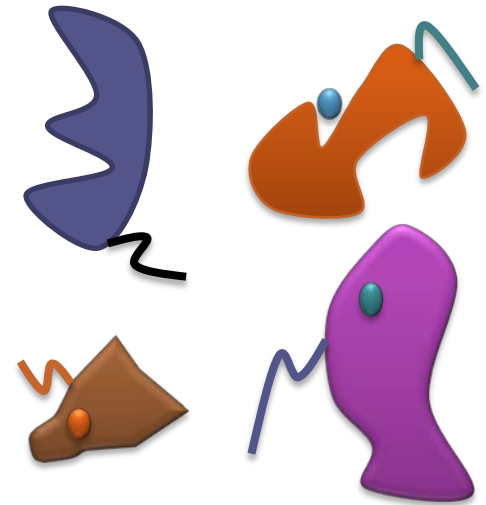
1. Identify attributes it has in common with other objects.
2. Identify attributes that differentiate it from other objects.



Geos



Not Geos



Which are Geos?

# What Makes a GOOD Definition?

- **Precise**
  - Avoid vague or non-mathematical terms
    - Some About Small Rounded
- **Well-Defined & Differentiated**
  - Places the object into a class of well-defined similar things.
  - States how it is different from things in that class.

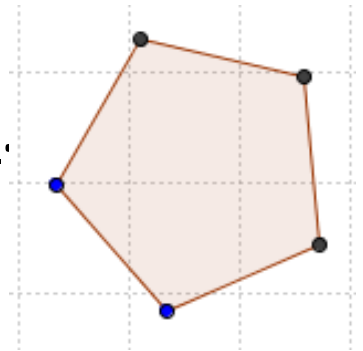
## Example: Pentagon

A pentagon is a polygon with exactly five sides.

*(well-defined class)*

*(differentiation)*

***(Precise!)***

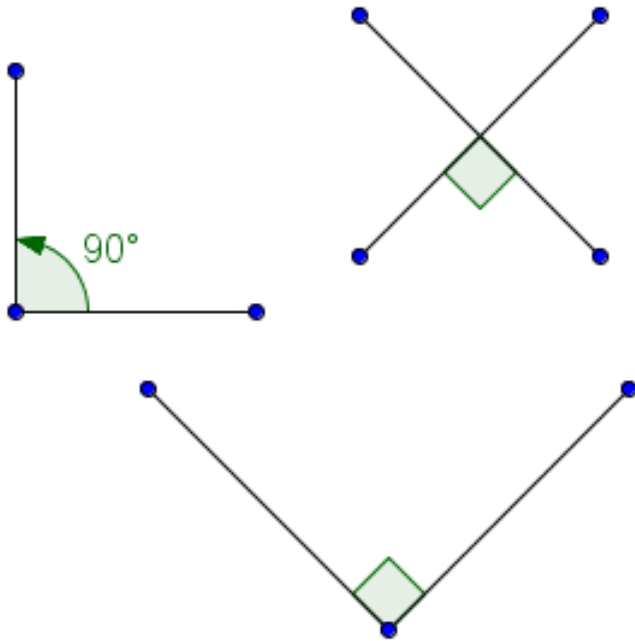


# What Makes a GOOD Definition?

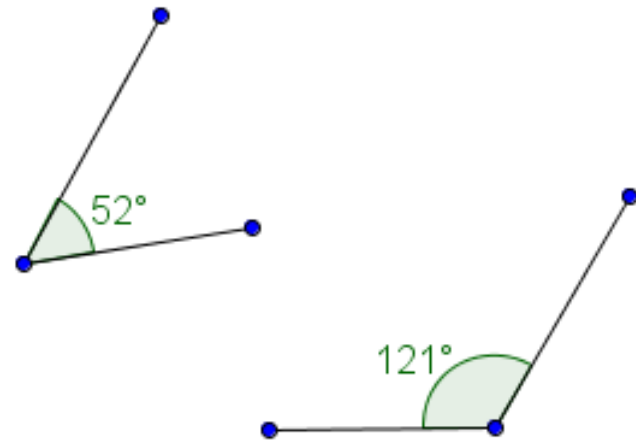
- **Reversible/Converse/Bi-Conditional**
  - “A pentagon is a polygon with exactly 5 sides.” (**Definition**)
  - “A polygon with exactly 5 sides is a pentagon.” (**Converse**)
  - “A polygon is a pentagon if and only if has 5 sides.” (**Biconditional**)
- **Testing Definitions – Counterexample**
  - Try to create a figure that meets the criteria of your definition but is **NOT** what you are trying to define.
- **Example – Can you find a Counterexample?**
  - Point B is the midpoint of segment AC if and only if  $AB=BC$ .

# Practice: Right Angle

- Define Right Angle.



**Right Angles**

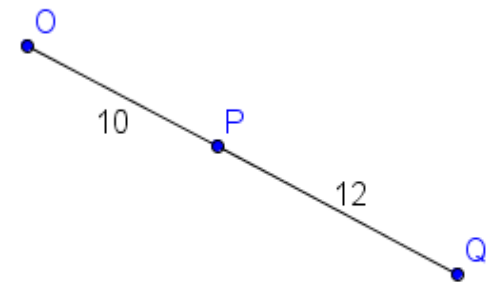
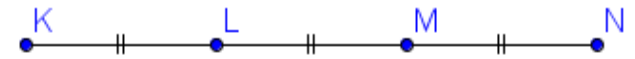
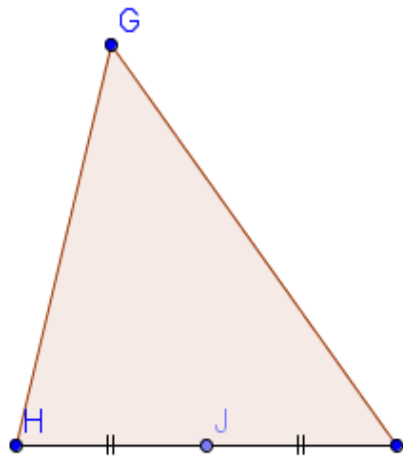
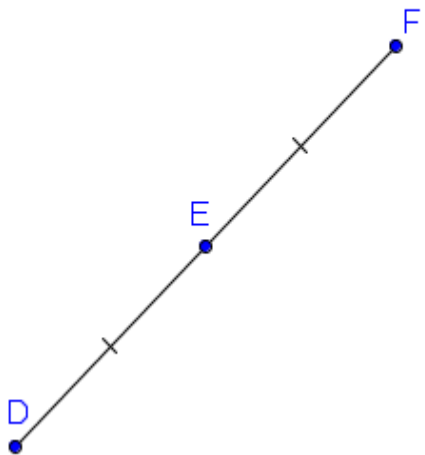


**NOT Right Angles**



# Practice: Midpoint of a Segment

- Define Midpoint of a Segment.



Point B is a midpoint of segment AC  
Point E is a midpoint of segment DF  
Point J is a midpoint of segment HI

Points L & M are NOT midpoints of segment KN  
Point P is NOT a midpoint of segment OQ

# New Definitions (see pp. 90-91)

- **Right Angle**

- A right angle is an angle with a measure of  $90^\circ$ .

- **Acute Angle**

- An acute angle is an angle with a measure less than  $90^\circ$ .

- **Obtuse Angle**

- An acute angle is an angle with a measure greater than  $90^\circ$ .

- **Midpoint of a Segment**

- The midpoint of a segment is a point on a line segment that divides the line segment into two equal parts.

- **Angle Bisector**

- The angle bisector is a ray that divides an angle into two equal parts.

# Applied Math – Daily Summary

- **Announcements**
  - Quiz 1.1 thru 1.8
- **Class Objectives**
  - Quiz
  - Math/Logic Games on Computer
- **Assignment**
  - No HW