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A New Angle on Looking at Angles

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A New Angle on Looking At Angles

2005 CMST Challenge Project

Michael Baskin/DFTHS

First/Second Block Math 8 Classes

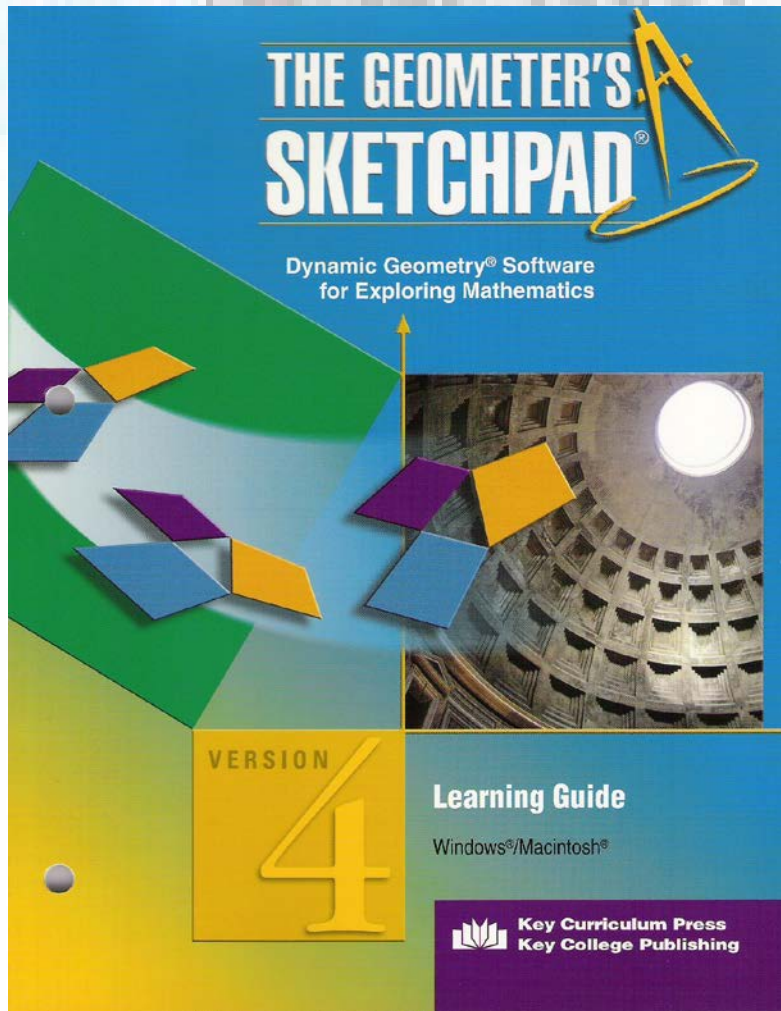
Problem Statement

- How do we successfully teach students about the geometry and relationships of angles from static models or pictures in a two day time frame in preparation for a common assessment on Key Idea 7 - Patterns & Functions, Performance Indicator G - Explore Relationships Involving Points, Lines, Angles & Planes?

Solution

- Use of technology to create a dynamic interactive lesson that has students, touching, feeling, seeing and understanding all they will need to know. They will remember and learn from having been a part of the experience.

Geometer's Sketchpad and SMARTboard® Technology



Geometer's Sketchpad

- Create working models of the angles students must know:
 - Complimentary
 - Supplementary
 - Vertical
 - Alternate interior
 - Congruent
 - Corresponding
- Vocabulary students must know:
 - Point
 - Line
 - Ray
 - Segment
 - Plane
 - Parallel
 - Perpendicular

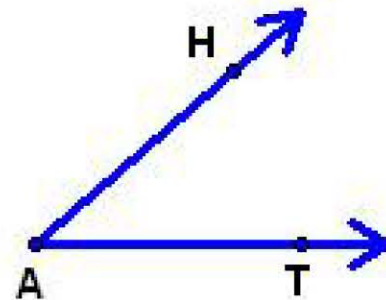
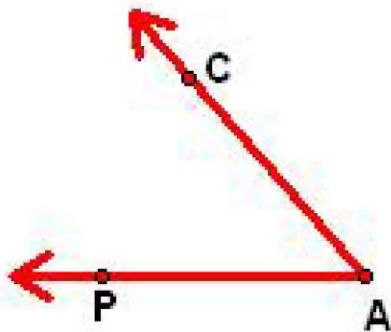
SMARTboard® Interactive Whiteboard

- Provides instant touch control over the software application.
- Enable teacher/student to draw or write in digital ink.
- Ability to write over any application, even moving video.
- Capture and print all your notes, to a single file.

Complementary Angle Model

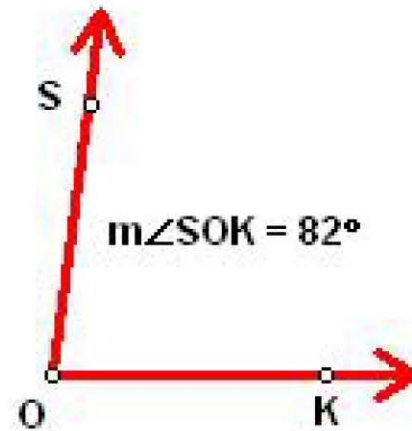
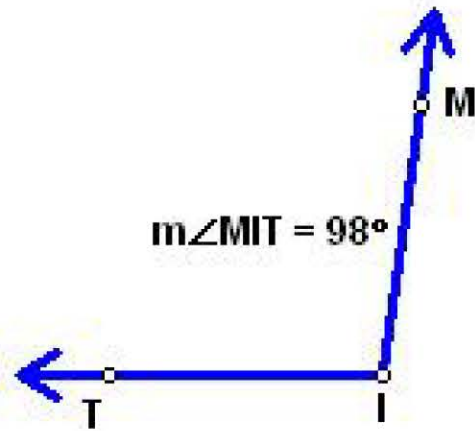
$$m\angle CAP = 49^\circ$$

$$m\angle HAT = 41^\circ$$



Drag point X to change the measures of the angles.

Supplementary Angle Model

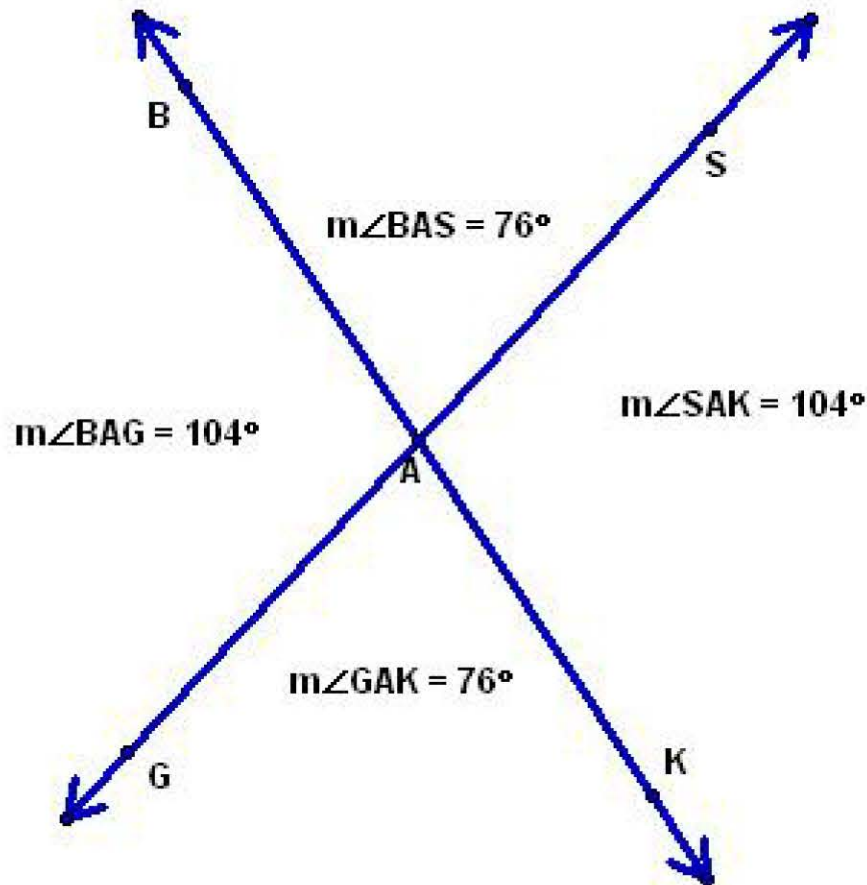


Drag point G to change the measures of the angles.



Vertical Angle Model

Drag point B or S to change measures of the angles.



Parallel Lines Cut By A Transversal Model

Move H to change angle of intersection.
Move Y to change angle of parallel lines.

