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Lesson Plans   CMST Institute

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Segments and Angles using Geometer's Sketch pad

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Generic Lesson Plan Template

You should submit this form in addition to any computer generated files/documents/models to your group folder on Angel. Please create a .zip file and upload the group of files as a single archive.

Name: Ijeoma B Okafor
Grade level(s)/Subject taught: Mathematics 10th Graders
Objectives: How do we Find the length of a segment and the measure of an angle Using Geometers Sketchpad.

Please provide a rich **one-page, single-spaced**, description or a *vision* of your best thinking on a way or ways you might teach the planned lesson. (approximately ½ page for the teacher role, ½ page for the student role). Also, construct a tentative rubric that you might use with your students (see example)

Items to include in your lesson plan: (Choose your discipline/concepts from your own area).

1. *Write* the Mathematical Concept or "key idea" that modeling will be used to teach: (e.g. Students use mathematical modeling/ multiple representation to provide a means of presenting, interpreting, communicating, and connecting mathematical information and relationships)

Key Idea 4: Modeling and Multiple Representation: Student uses Mathematical modeling/multiple representation to provide a means presenting, interpreting, communicating, and connecting mathematical information and relationships.

and/or…

1b. *Write* the Science Concept or "key idea" that modeling will be used to teach: (e.g. Organisms maintain a dynamic equilibrium that sustains life).

Materials:

"…a rich **one-page, single-spaced**, description or a *vision* of your best thinking…"

Prompts:
1. How will you assess the prior knowledge of the student?
2. How will you begin the lesson?
3. What are the teacher and students doing every 5-10 minutes? (Teacher Actions and Student Actions
4. How will you assess the learning for the lesson?

Using _____ I plan on having my students…
(software / modeling package(s)

Example: "I was thinking about beginning the class on [modeling X] by using the overhea

Essential question: How do find the length of a line segment and measuring the angles using Geometers Sketchpad.

Prior Knowledge: Using a ruler and protractor, student should be able to measure a line segment and the angles formed.

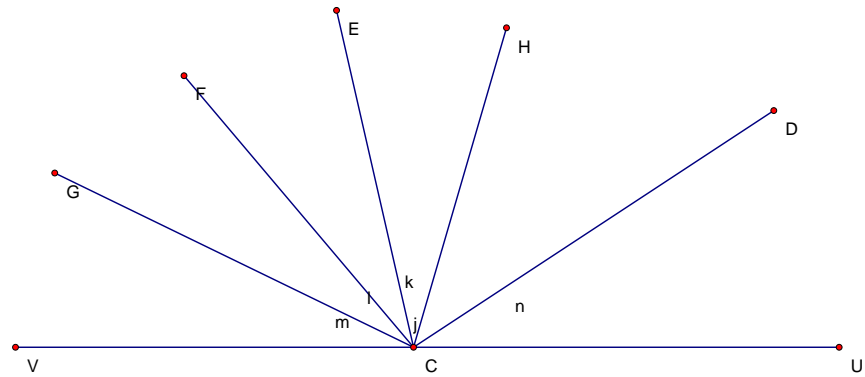New Lesson: Using Geometers Sketchpad, construct a line segment with angle
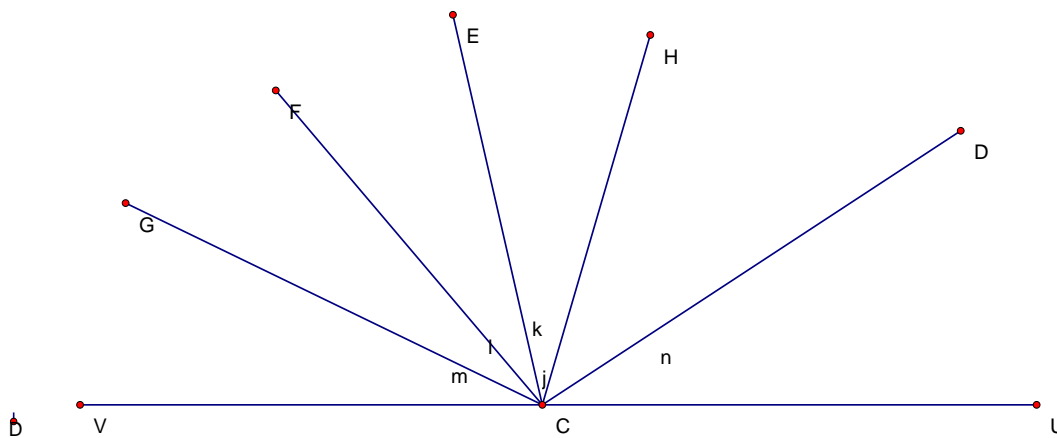
Step 2

Using GSP, we will now measure the line segments.

m $\overline{CU}$ = 7.77 cm

n = 7.86 cm

j = 6.07 cm

k = 6.29 cm

l = 6.47 cm

m = 7.25 cm

m $\overline{CV}$ = 7.24 cm

click on each line segment, and go to neasure and click on length.

E

H

F

D

G

k

l

j

m

n

V

C

U

Now to measure the angles.

m∠UCD = 33.26°

m∠DCH = 40.40°

m∠HCE = 29.09°

m∠ECF = 27.35°

m∠FCG = 23.94°

m∠GCV = 25.96°

click on three consecutive angle , and go to neasure and click on angle.

E

H

F

D

G

k

l

j

m

n

V

C

U

$m\angle UCD = 33.26°$

$m\angle DCH = 40.40°$

$m\angle HCE = 29.09°$

$m\angle ECF = 27.35°$

$m\angle FCG = 23.94°$

$m\angle GCV = 25.96°$
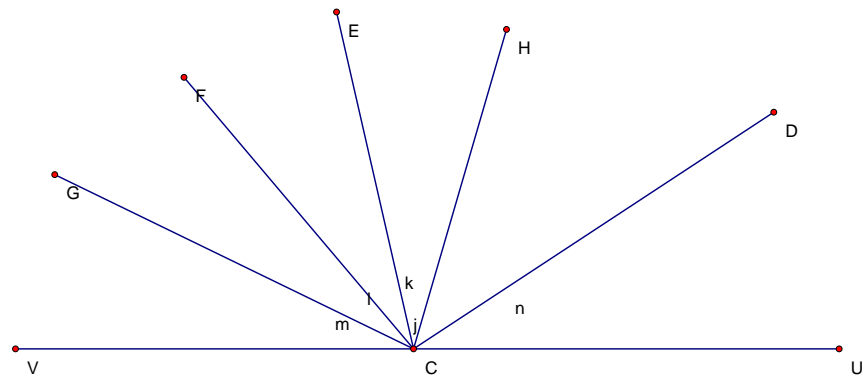
Now to show that the measure of the angles in a straight line adds up to 180..

$33.26+40.4+29.09+27.35+23.94+25.96 = 180.00$

Practice Ex.

1.

Find the length and the angle measure of each segment.

A_1

W   Y   X

2.

F_1

D_1

E_1

G_1

C_1

H_1
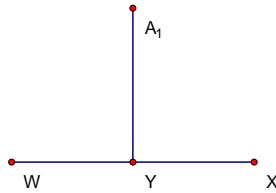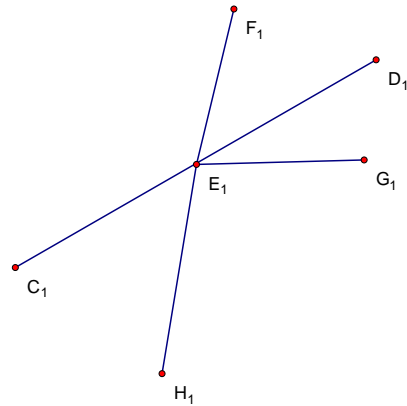
3. Find the measure of sides of the triangle, and measure each angle, and the show that the sum of the angles is 180.

L_1

J_1

K_1
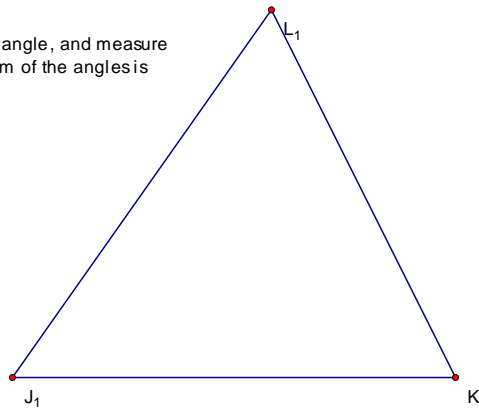
Rubric

4	3	2	1	0
Mastering the concept of CSP, Being able to draw, hide, measure, and calculate the length and angles.	Having some understanding, being able to draw, hide, and able to measure the length only.	Limited understanding, able to draw and hide only.	Able to draw and nothing else.	No idea, no work done. Clueless.