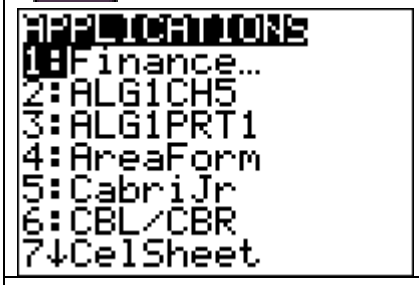
TI-84+ Student Worksheet for G.G. 35

<table>
<tr>
<td>After turning on your handheld press
APPS
 
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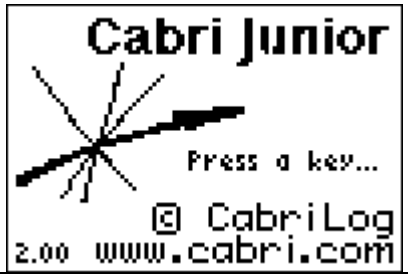
<td>Select CabriJr.
5
 
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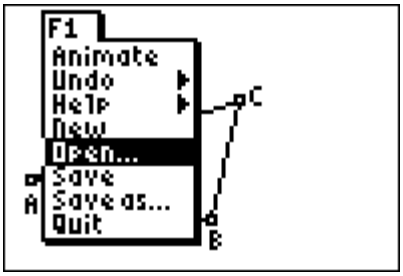
<td>Y=  scroll down to Open
 
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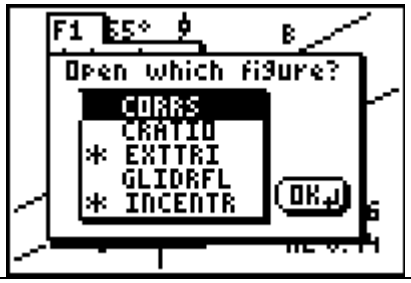
<td>ENTER scroll to CORRS
 
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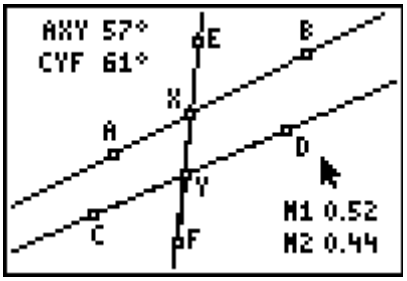
<td>ENTER
 

The measures of $\angle AXY$ and $\angle CYF$ are shown. The slope of $\overleftrightarrow{AB}$ is M1 and the slope of $\overleftrightarrow{CD}$ is M2</td>
<td>You will explore the figure by grabbing and moving different objects.

Answer the following questions and draw conclusions from your explorations.</td>
</tr>
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Investigating $\angle AXY$ and $\angle CYF$:

1. True or False:

A) $\angle AXY$ and $\angle CYF$ are interior angles. _____

B) $\angle AXY$ and $\angle CYF$ are exterior angles. _____

C) $\angle AXY$ is an interior angle. _____

D) $\angle CYF$ is an exterior angle. _____

E) $\angle AXY$ and $\angle CYF$ are adjacent angles. _____

F) $\angle AXY$ and $\angle CYF$ are on opposite sides of transversal $\overleftrightarrow{EF}$. _____

G) $\angle AXY$ and $\angle CYF$ are on the same side of transversal $\overleftrightarrow{EF}$. _____

2. $\angle AXY$ and $\angle CYF$ are _____

A) alternate exterior angles

B) interior angles on the same side of the transversal

C) corresponding angles

D) alternate interior angles

SELECT, GRAB AND MOVE **point A**

3. What changes? _____

4. What remains the same ? _____

SELECT GRAB AND DRAG **points B, C, D, E, F**

5. What changes? _____

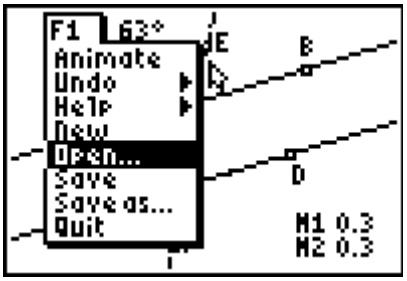
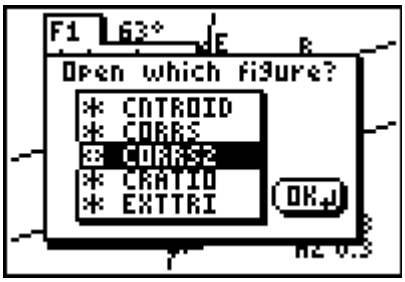
6. What remains the same ? _____

7. From your observations what seems to be true about $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ when $\angle AXY = \angle CYF$? _____

8. From your observations what seems to be true about $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ when M1 = M2 ? _____

Fill in the blank:

If two lines are cut by a transversal and a pair of corresponding angles are equal then the lines are _____.

Y= 	ENTER scroll to CORRS2  ENTER

1. True or False:

   A) $\angle AXY$ and $\angle CYF$ are interior angles. _____

   B) $\angle AXY$ and $\angle CYF$ are exterior angles. _____

   C) $\angle AXY$ is an interior angle. _____

   D) $\angle CYF$ is an exterior angle. _____

   E) $\angle AXY$ and $\angle CYF$ are adjacent angles. _____

   F) $\angle AXY$ and $\angle CYF$ are on opposite sides of transversal $\overleftrightarrow{EF}$. _____

   G) $\angle AXY$ and $\angle CYF$ are on the same side of transversal $\overleftrightarrow{EF}$. _____

2. $\angle AXY$ and $\angle CYF$ are _____

   A) alternate exterior angles

   B) interior angles on the same side of the transversal

   C) corresponding angles

   D) alternate interior angles

SELECT, GRAB AND MOVE **point A**

3. What changes? _____

4. What remains the same ? _____

SELECT GRAB AND DRAG **points B, C, D**

5. What changes? _____
6. What remains the same ? _____

Fill in the blank:

7. In this exercise $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ were always _____.
8. If two parallel lines are cut by a transversal then _____

_____