Student Worksheet for G.G. 35 using TI-Nspire

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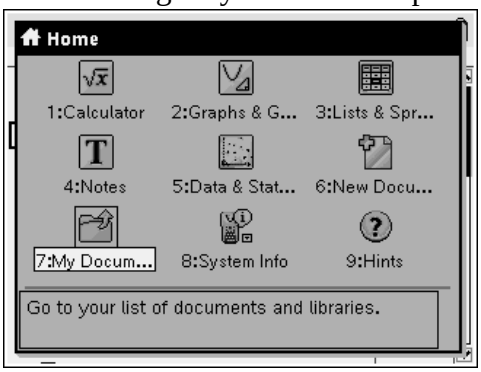
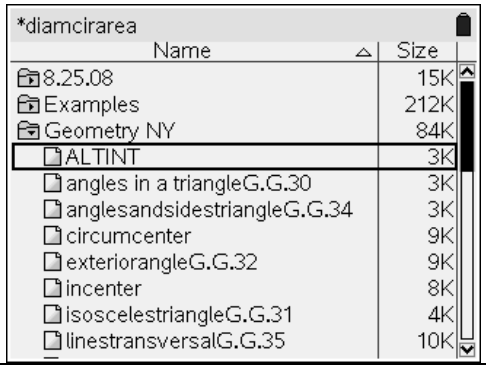
  </td>
<td>Select My documents 
Open Folder Geometry NY
Select ALTINT
  </td>
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 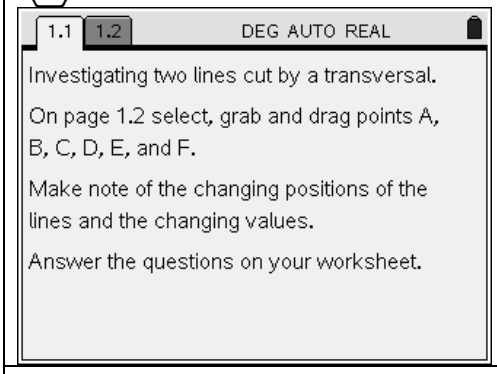 </td>
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 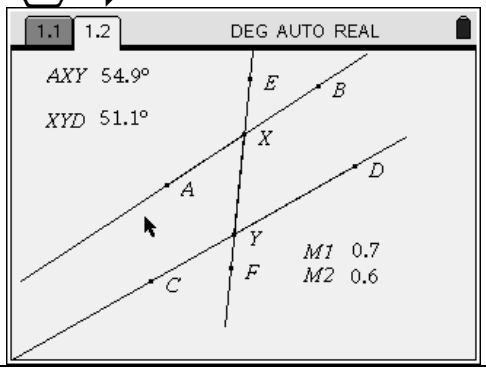 </td>
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<tr>
<td>The measures of $\angle AXY$ and $\angle XYD$ are shown. The slope of $\overleftrightarrow{AB}$ is M1 and the slope of $\overleftrightarrow{CD}$ is M2</td>
<td>You will explore the figure by grabbing and moving different objects.

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

1. True or False:

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

   B) $\angle AXY$ and $\angle XYD$ are on opposite sides of transversal $\overleftrightarrow{EF}$ _____

2. $\angle AXY$ and $\angle XYD$ 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**

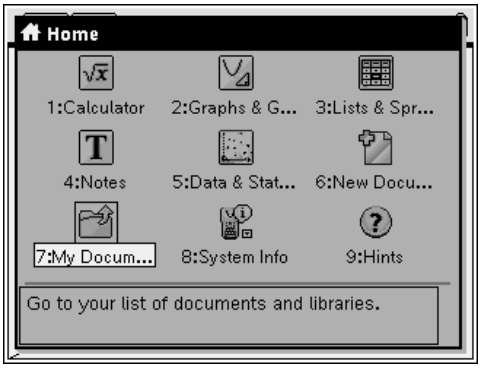
5. What changes? _____
6. What remains the same ? _____

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

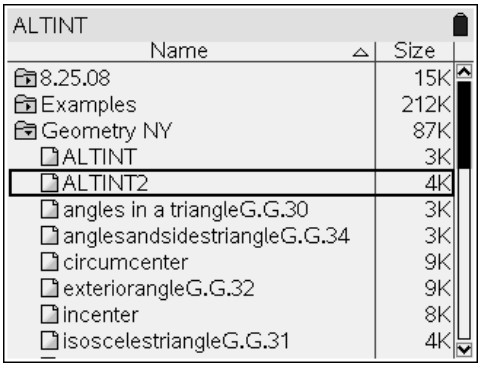
8. From your observations what seems to be true about $\overleftrightarrow{AB}$ and $\overleftrightarrow{CD}$ when M1 = M2 ? _____

Fill in the blank:

If two lines are cut by a transversal and the alternate interior angles are equal then the lines are _____.



7 scroll to ALTINT2



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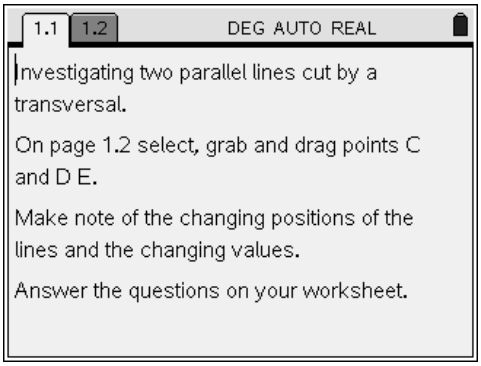

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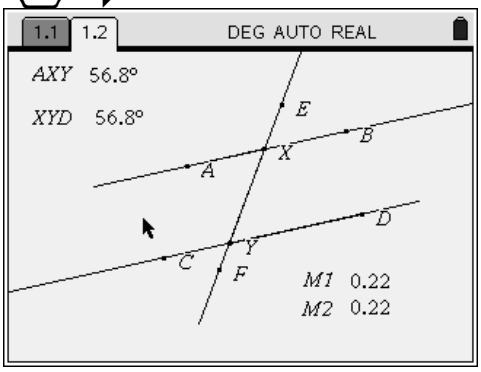

1. True or False:

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

   B) $\angle AXY$ and $\angle XYD$ are on opposite sides of transversal $\overline{EF}$ _____

2. $\angle AXY$ and $\angle XYD$ 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 C**

3. What changes? _____

4. What remains the same ? _____

SELECT GRAB AND DRAG **point 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 _____

_____