
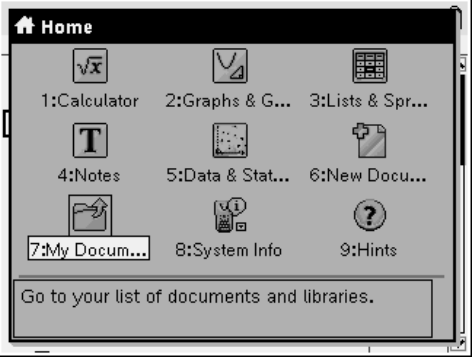

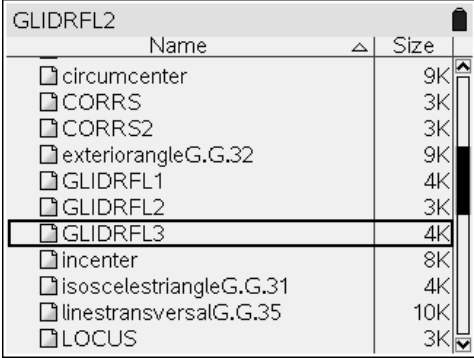

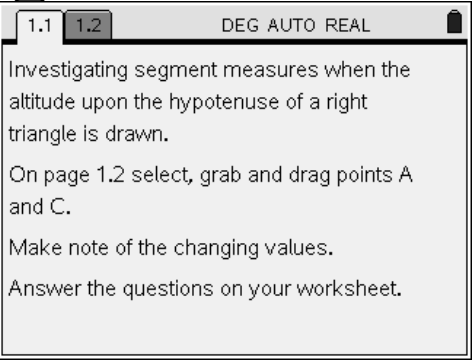

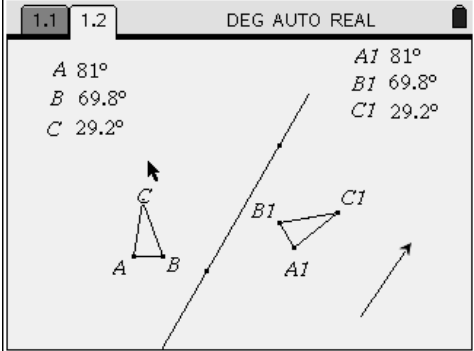


Ti-Nspire Student Worksheet for G.G.55 Investigate, justify, and apply the properties that remain invariant under glide reflections ANGLE MEASURE

<p>After turning on your handheld press </p> 	<p>Select My documents </p> <p>Open Folder Geometry NY Select GLIDRFL3</p>  <table border="1"> <thead> <tr> <th>Name</th> <th>Size</th> </tr> </thead> <tbody> <tr><td>circumcenter</td><td>9K</td></tr> <tr><td>CORRS</td><td>3K</td></tr> <tr><td>CORRS2</td><td>3K</td></tr> <tr><td>exteriorangleG.G.32</td><td>9K</td></tr> <tr><td>GLIDRFL1</td><td>4K</td></tr> <tr><td>GLIDRFL2</td><td>3K</td></tr> <tr><td>GLIDRFL3</td><td>4K</td></tr> <tr><td>incenter</td><td>8K</td></tr> <tr><td>isoscelestriangleG.G.31</td><td>4K</td></tr> <tr><td>linestransversalG.G.35</td><td>10K</td></tr> <tr><td>LOCUS</td><td>3K</td></tr> </tbody> </table>	Name	Size	circumcenter	9K	CORRS	3K	CORRS2	3K	exteriorangleG.G.32	9K	GLIDRFL1	4K	GLIDRFL2	3K	GLIDRFL3	4K	incenter	8K	isoscelestriangleG.G.31	4K	linestransversalG.G.35	10K	LOCUS	3K
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<p></p>  <p>Investigating segment measures when the altitude upon the hypotenuse of a right triangle is drawn. On page 1.2 select, grab and drag points A and C. Make note of the changing values. Answer the questions on your worksheet.</p>	<p></p>  <table border="1"> <thead> <tr> <th>Angle</th> <th>Measure</th> </tr> </thead> <tbody> <tr><td>A</td><td>81°</td></tr> <tr><td>B</td><td>69.8°</td></tr> <tr><td>C</td><td>29.2°</td></tr> <tr><td>A1</td><td>81°</td></tr> <tr><td>B1</td><td>69.8°</td></tr> <tr><td>C1</td><td>29.2°</td></tr> </tbody> </table>	Angle	Measure	A	81°	B	69.8°	C	29.2°	A1	81°	B1	69.8°	C1	29.2°										
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<p>$\triangle A_1B_1C_1$ is the image of $\triangle ABC$ under a glide reflection.</p> <p>The measures of the angles of the triangles have been indicated.</p>	<p>You will move the vertices of $\triangle ABC$ and drawn conclusions about $\triangle A_1B_1C_1$.</p>																								

1.) Select grab and drag point A.

What is changing? _____

What is remaining the same? _____

2.) Select grab and drag point B.

What is changing? _____

What is remaining the same? _____

3) Select, grab and drag point C. As you move point C stop and record 5 successive trials by entering the measures of the angles in the table below.

Trial #	$\angle ABC$	$\angle A_1B_1C_1$	$\angle BCA$	$\angle B_1C_1A_1$	$\angle CAB$	$\angle C_1A_1B_1$
1						
2						
3						
4						
5						

4) What seems to be true about the measures of $\angle ABC$ and $\angle A_1B_1C_1$?

5) Name two other pairs of angles that demonstrate this same property.

6) Under the transformation glide reflection is angle measure preserved?

7) In your own words explain what it means when a property is preserved.
