
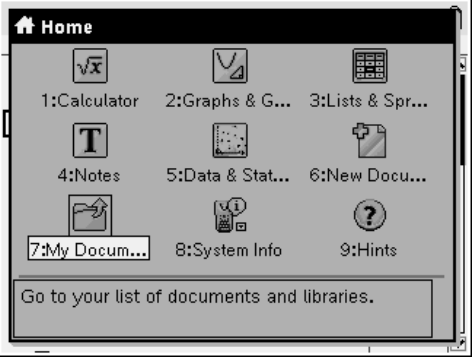

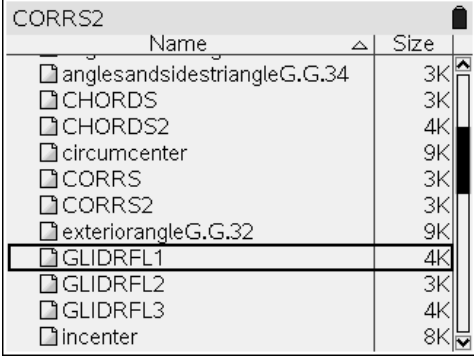

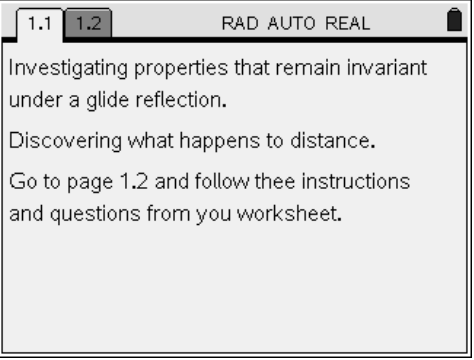

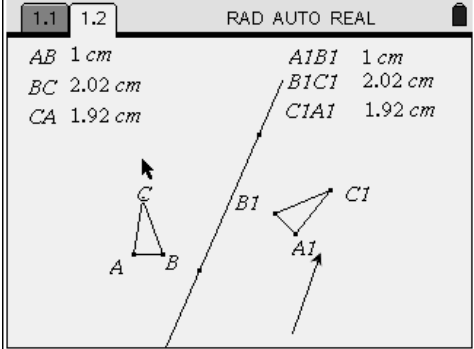


TI-Nspire Student Worksheet for G.G.55 Investigate, justify, and apply the properties that remain invariant under glide reflections DISTANCE

<p>After turning on your handheld press </p> 	<p>Select My documents </p> <p>Open Folder Geometry NY</p> <p>Select GLIDRFL1</p>  <table border="1" data-bbox="824 426 1295 779"> <thead> <tr> <th>Name</th> <th>Size</th> </tr> </thead> <tbody> <tr><td>anglesandsidetriangleG.G.34</td><td>3K</td></tr> <tr><td>CHORDS</td><td>3K</td></tr> <tr><td>CHORDS2</td><td>4K</td></tr> <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> </tbody> </table>	Name	Size	anglesandsidetriangleG.G.34	3K	CHORDS	3K	CHORDS2	4K	circumcenter	9K	CORRS	3K	CORRS2	3K	exteriorangleG.G.32	9K	GLIDRFL1	4K	GLIDRFL2	3K	GLIDRFL3	4K	incenter	8K
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<p></p>  <p>1.1 1.2 RAD AUTO REAL</p> <p>Investigating properties that remain invariant under a glide reflection.</p> <p>Discovering what happens to distance.</p> <p>Go to page 1.2 and follow these instructions and questions from you worksheet.</p>	<p></p>  <p>1.1 1.2 RAD AUTO REAL</p> <table border="0" data-bbox="849 951 1271 1035"> <tr> <td>AB 1 cm</td> <td>A_1B_1 1 cm</td> </tr> <tr> <td>BC 2.02 cm</td> <td>B_1C_1 2.02 cm</td> </tr> <tr> <td>CA 1.92 cm</td> <td>C_1A_1 1.92 cm</td> </tr> </table>	AB 1 cm	A_1B_1 1 cm	BC 2.02 cm	B_1C_1 2.02 cm	CA 1.92 cm	C_1A_1 1.92 cm																		
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<p>$\triangle A_1B_1C_1$ is the image of $\triangle ABC$ under a glide reflection.</p> <p>In the diagram the lengths of the sides of the triangles have been indicated.</p> <p>You will move the vertices of $\triangle ABC$ and drawn conclusions about the image $\triangle A_1B_1C_1$</p>	<p>As you move the vertices of $\triangle ABC$ take note of the measurements of the sides of the two triangles.</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 distances in the table below.

Trial #	AB	A1B1	BC	B1C1	CA	C1A1
1						
2						
3						
4						
5						

4) What seems to be true about the distances AB and A1B1? _____

5) Name any other pairs of segments that share this same property. _____

6) Under the transformation glide reflection is distance preserved? _____

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