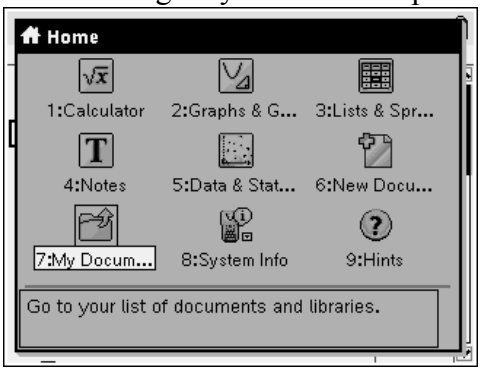
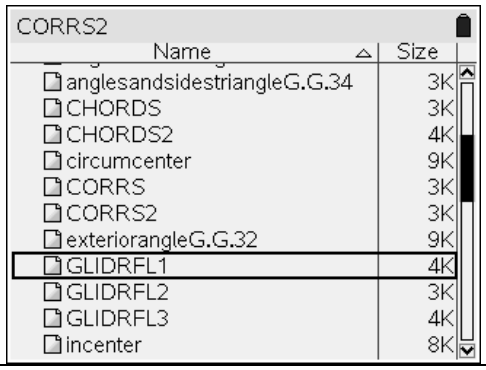
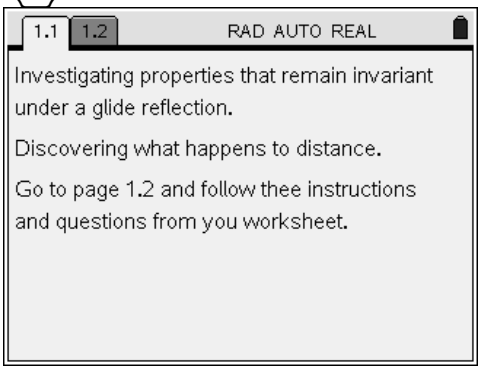
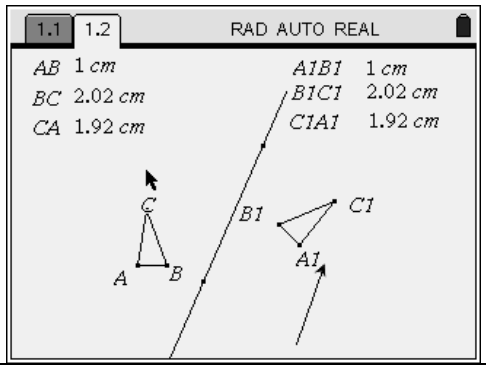
TI-Nspire Student Worksheet for G.G.55 Investigate, justify, and apply the properties that remain invariant under glide reflections DISTANCE

After turning on your handheld press 	Select My documents Open Folder Geometry NY Select GLIDRFL1 
  	 
ΔA1B1C1 is the image of ΔABC under a glide reflection. In the diagram the lengths of the sides of the triangles have been indicated. You will move the vertices of ΔABC and drawn conclusions about the image ΔA1B1C1	As you move the vertices of ΔABC take note of the measurements of the sides of the two triangles.

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.

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