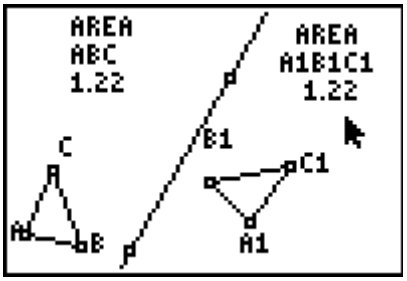
Teacher Notes

G.G.55 Investigate, justify, and apply the properties that remain invariant under glide reflections. AREA

Lesson Launcher Objective:

1) Discover that area is preserved under a glide reflection.

Procedure:

The student opens Cabri Jr. and the APPVAR GLIDRFL2 	ΔA1B1C1 is the image of ΔABC under a glide reflection. The measures of the areas of the triangles have been indicated. The student will explore the figure by dragging the vertices of the ΔABC

1.) Select grab and drag point A.

What is changing? The areas of the triangles.

What is remaining the same? The area of the pre-image and image are always the same.

2.) Select grab and drag point B.

What is changing? The areas of the triangles.

What is remaining the same? The area of the pre-image and image are always the same.

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

Trial Number	Area of ΔABC	Area of ΔA1B1C1
1		
2		
3		
4		
5		

Answers will vary student to student.

4) What seems to be true about the areas of ΔABC and ΔA1B1C1? They are always equal.

5) Under the transformation glide reflection is area preserved? yes

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

Answers will vary.