Student Worksheet for G.G.55 Investigate, justify, and apply the properties that remain invariant under reflections Angle Measure

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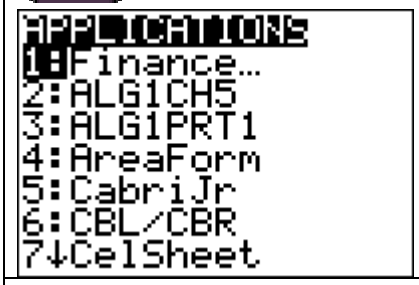
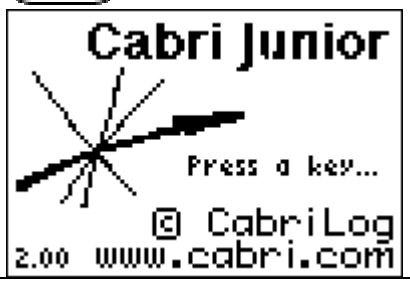
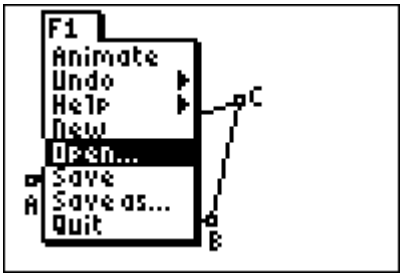
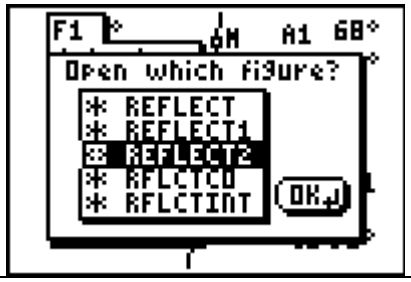
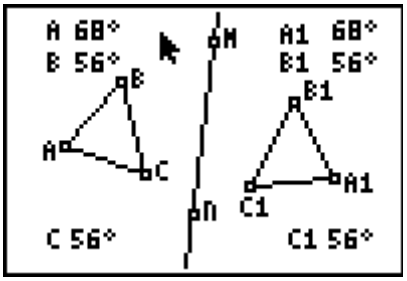
|---|---|
| After turning on your handheld press<br>APPS<br>  <br> | Select CabriJr.<br>5<br>  <br> |
| | |
| Y=  scroll down to Open<br>  <br> | ENTER scroll to REFLECT1<br>  <br> |
| | |
| ENTER<br>  <br> | ΔA1B1C1 is the image of ΔABC under a reflection through $\overline{MN}$ .<br><br>The measures of the angles of the triangles have been indicated.<br><br>You will move the vertices of ΔABC and drawn conclusions about the image ΔA1B1C1 |

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 # | $\angle ABC$ | $\angle A1B1C1$ | $\angle BCA$ | $\angle B1C1A1$ | $\angle CAB$ | $\angle C1A1B1$ |
|---|---|---|---|---|---|---|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |

4) What seems to be true about the measures of $\angle ABC$ and $\angle A1B1C1$ ?

_____

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.

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