
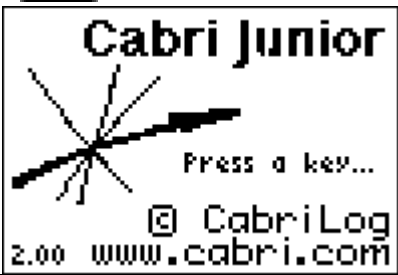

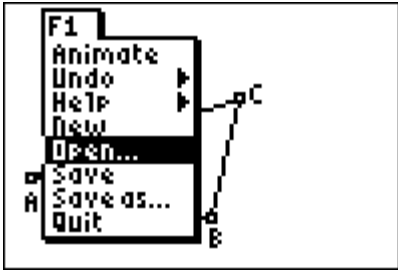
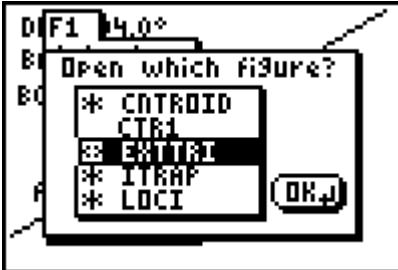
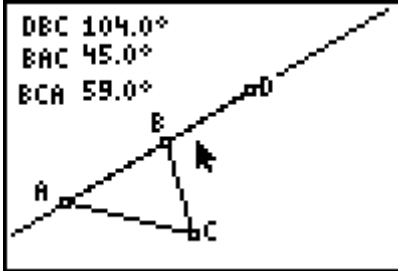
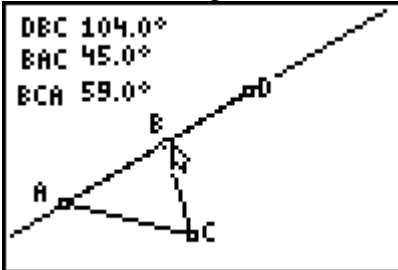
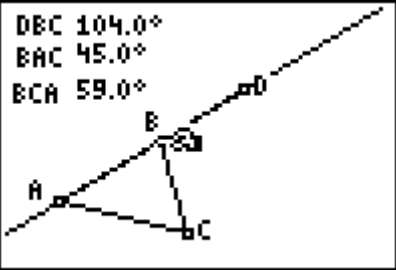


Student Worksheet for G.G. 32

<p>After turning on your handheld press</p> <p><b>APPS</b></p> 	<p>Select CabriJr.</p> <p><b>5</b></p> 
<p><b>Y=</b>  scroll down to Open</p> 	<p><b>ENTER</b> scroll to EXTTRI</p> 
<p><b>ENTER</b></p> 	<p>Now position the cursor over any point. The vertex will become "active" and the cursor will change to a hollow arrow.</p> 

<p>ALPHA</p> <p>DBC 104.0°        BAC 45.0°        BCA 59.0°</p> 	<p>You have now selected a point and grabbed the point. Now use your cursor to drag the point and observe what happens on your calculator.</p> <p>Answer the questions below.</p>
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- 1) Is  $\angle DBC$  in the interior or exterior of  $\triangle ABC$ ? \_\_\_\_\_
- 2) Is  $\angle BAC$  in the interior or exterior of  $\triangle ABC$ ? \_\_\_\_\_
- 3) Is  $\angle BCA$  in the interior or exterior of  $\triangle ABC$ ? \_\_\_\_\_
- 4) After exploring many triangles by dragging different points, was there a relationship between the measures of  $\angle BCA$ ,  $\angle BAC$  and  $\angle DBC$ ? \_\_\_\_\_
- 5) If you found a relationship, write a statement that describes this relationship.  
 \_\_\_\_\_

- 6)  $\angle BAC$  and  $\angle BCA$  are referred to as remote interior angles with respect to  $\angle DBC$ . What is the name of the adjacent interior angle? \_\_\_\_\_
- 7) What is the sum of  $\angle DBC$  and its adjacent interior angle? \_\_\_\_\_
- 8) Given the symbols,  $<$ ,  $>$ ,  $=$  place the correct symbol in each of the following:
  - A)  $\angle DBC$  \_\_\_\_\_  $\angle BCA$
  - B)  $\angle DBC$  \_\_\_\_\_  $\angle BAC$

Remember you can investigate many different situations by dragging a point.

- 9) Using your answers to question 8 write a statement about an exterior angle of a triangle and either remote interior angle.
- 10) Given the symbols,  $<$ ,  $>$ ,  $=$  place the correct symbol in each of the following:
  - A)  $\angle DBC + \angle CBA$  \_\_\_\_\_  $180^\circ$
  - B)  $\angle BCA + \angle BAC$  \_\_\_\_\_  $\angle DBC$
  - C)  $\angle BCA + \angle BAC + \angle CBA$  \_\_\_\_\_  $180^\circ$