
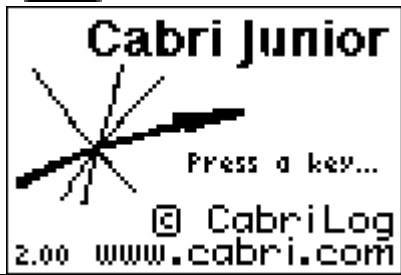
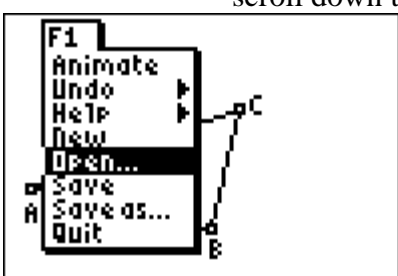

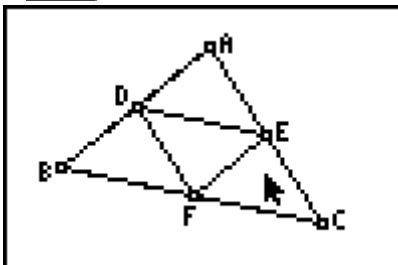


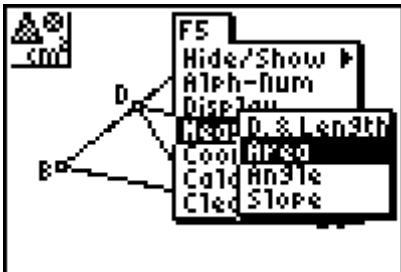
Student Worksheet for G.G. 42

<p>After turning on your handheld press</p> <p>APPS</p> 	<p>Select CabriJr.</p> <p>5</p> 
<p>Y= ↓ scroll down to Open</p> 	<p>ENTER scroll to MDSEGTRI</p> 
<p>ENTER</p> 	<p>Points D, E and F are the midpoints of sides AB, AC and BC respectively.</p> <p>Investigate the areas of $\triangle BDF$, $\triangle ADE$, $\triangle EFC$, $\triangle DEF$ and $\triangle ABC$</p>

Find the area of $\triangle EFC$

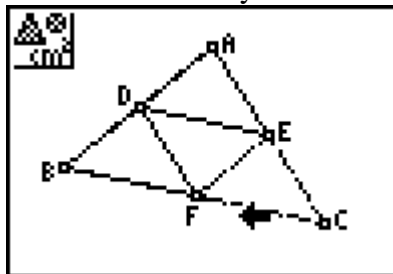
GRAPH

scroll to Measure Area



ENTER

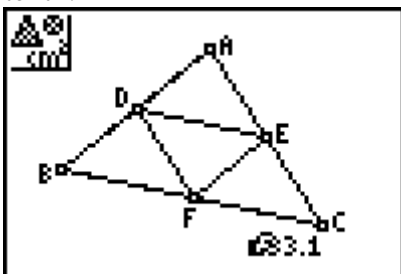
Move cursor to any side of $\triangle EFC$



When entire triangle is "active" press

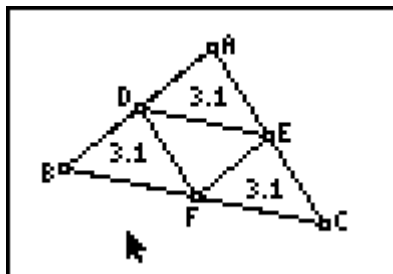
ENTER

This is the area of $\triangle EFC$ to the nearest tenth.



ENTER

Press then repeat the process to find the areas of $\triangle BDF$ and $\triangle ADE$



1) The area of $\triangle DEF$ should be equal to _____

Draw a triangle to create $\triangle DEF$

WINDOW

scroll to Triangle

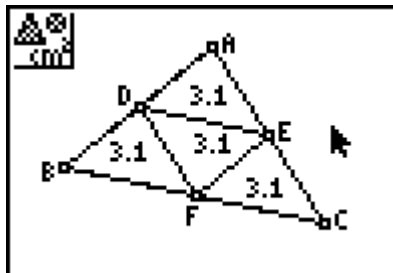


ENTER

Move your cursor to each vertex of $\triangle DEF$ and select each vertex by pressing

ENTER


Then find the area of $\triangle DEF$.



2) Was this your answer to question 1? _____

3) What is the area of $\triangle ABC$? _____



Press  to remove any of the tools you have been using. Select, grab and drag any vertex of $\triangle ABC$. Note: the area values you have found will not change position.

4) As you drag any vertex what is true about the areas of $\triangle BDF$, $\triangle ADE$, $\triangle EFC$, $\triangle DEF$? _____

5) Take any 2 of the four inner triangles and measure the lengths of the three sides. Make a conjecture as to why the measures of the sides that you find support the fact that the areas of the triangles are equal.
