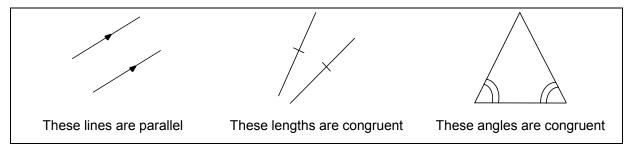
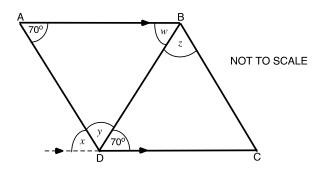
## **Puzzling Triangles**

Use the diagrams below to remind you of markings and their meanings:



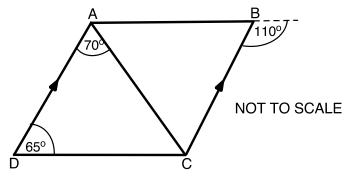
1. In this diagram two 70° angles have been labeled. Four other angles are labeled w, x, y and z.

Complete the table below. If it is possible to work out the measure of the angle, write it down and show your method. If it is not possible, explain how you know.



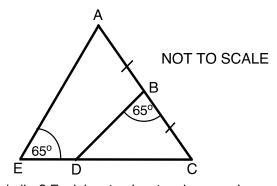
Angle	Is it possible to find the measure of the angle? If so, what is it?	Explain carefully how you decided.
w		
x		
у		
Z		

2. The diagram below shows two triangles, triangle ABC and triangle ACD:



Are the two triangles similar? Explain, step by step, how you know.


3. The diagram below shows triangle BCD within triangle ACE.



Are the two triangles similar? Explain, step by step, how you know.