



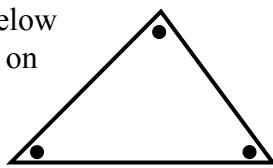
## Angle Properties 2



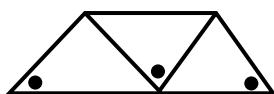
### D). Angle Sum of a Triangle

**The interior angles of a triangle add up to  $180^\circ$**

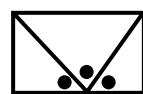
1. Cut out a triangle like the one below and mark on the dots.



2. Fold the top vertex to touch the base.

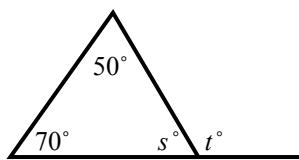


3. Fold in the other two vertices to where they all meet.



All the angles are now on a straight line, hence they add up to  $180^\circ$ .

E.g. From the diagram find  $s$  and  $t$ .



$$s^\circ + 50^\circ + 70^\circ = 180^\circ \text{ (Angle Sum of a Triangle)}$$

$$s^\circ + 120^\circ = 180^\circ$$

$$s^\circ = 60^\circ$$

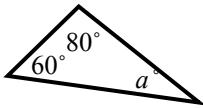
$$60^\circ + t^\circ = 180^\circ \text{ (Angles on straight line)}$$

$$t^\circ = 120^\circ$$

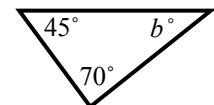


Find the size of the angles marked by letters in each diagram.  
Give a reason for each angle found. (**Diagrams not to scale**).

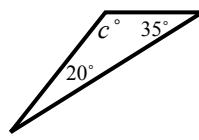
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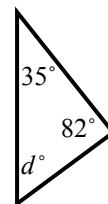
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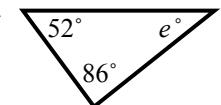
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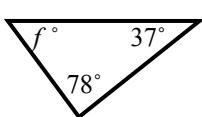
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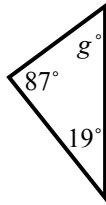
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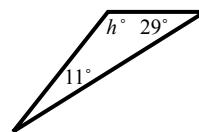
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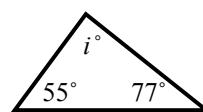
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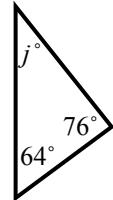
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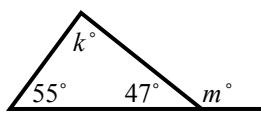
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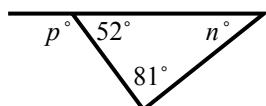
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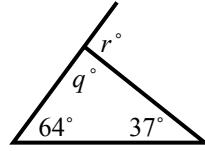
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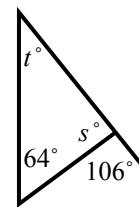
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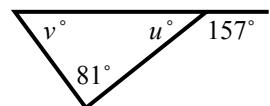
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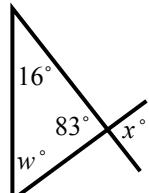
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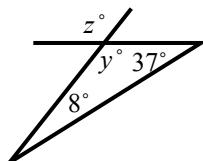
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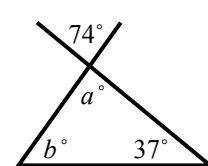
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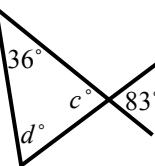
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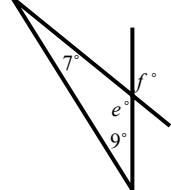
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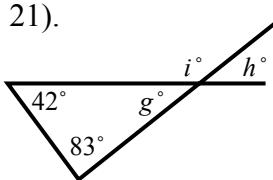
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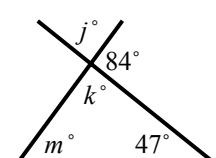
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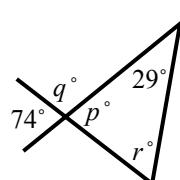
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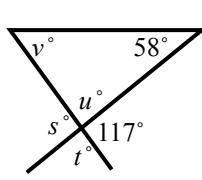
22).



23).



24).



25).

