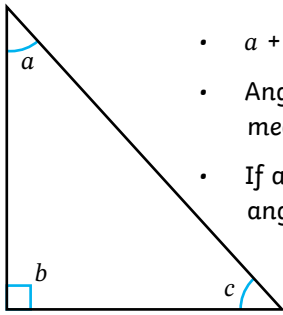
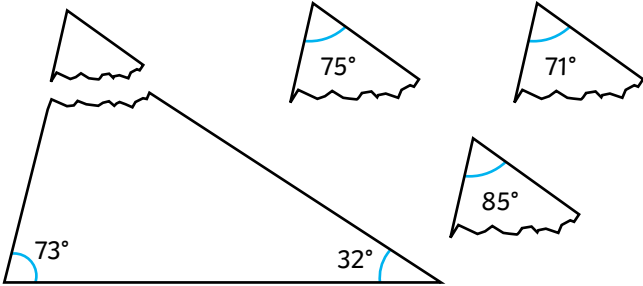


- 1) Decide whether the statements about this triangle are true or false.

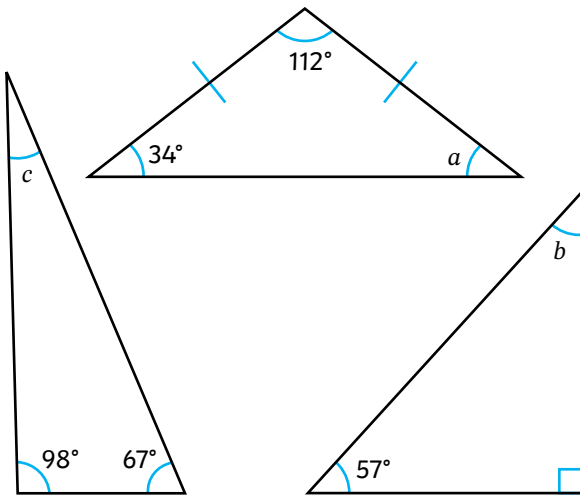


- $a + b + c =$  \_\_\_\_\_
- Angle  $a$  and angle  $c$  both measure  $60^\circ$ .
- If angle  $a$  measures  $55^\circ$ , angle  $c$  will measure  $25^\circ$ .

- 2) One of the corners is torn from this triangle. Circle the corner that shows the angle of the missing corner.

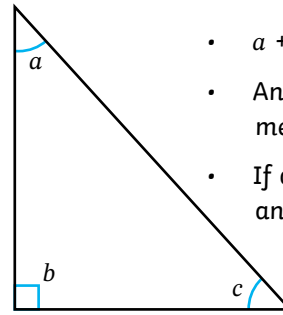


- 3) Calculate the missing angles.



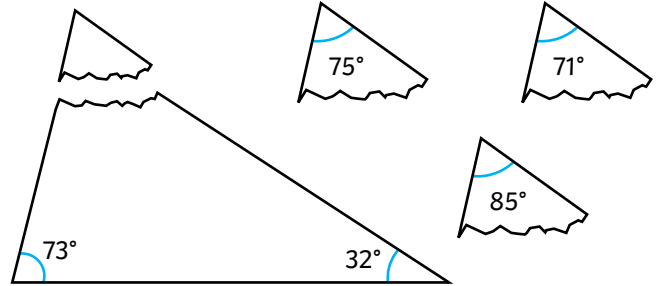
Important note: angles not drawn to scale, do not use a protractor.

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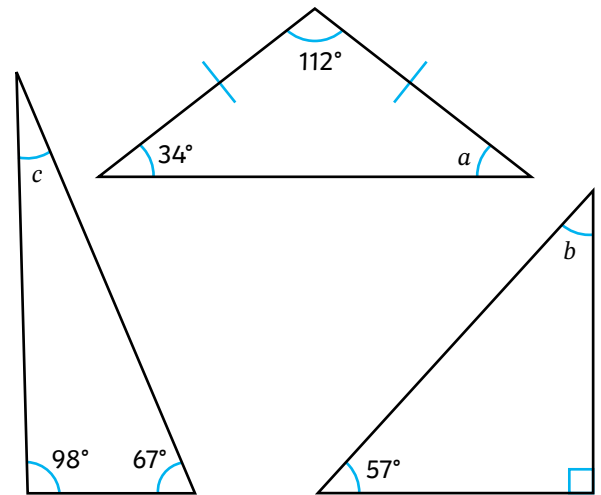


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- 1) Always, sometimes or never true?  
Prove it!



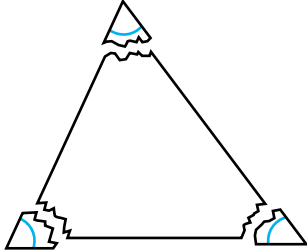
a) When this triangle is doubled in size, the interior angles also double in size.

b) A triangle can have two obtuse interior angles.

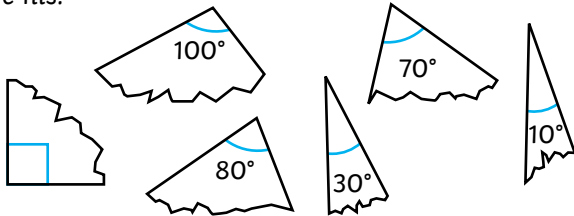


c) A triangle can have two acute interior angles.

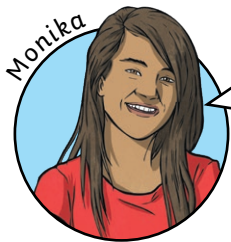
- 2) The teacher has torn the corners off a triangle to demonstrate that they all add up to 180 degrees.



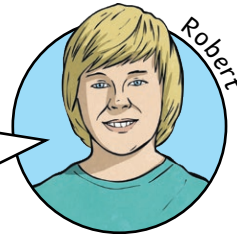
Tayo draws a different scalene triangle and tears off the corners but does not know which of the corners are his.



These children are trying to work out which three of the pieces could have come from Tayo's triangle. Explain whether you agree or disagree with each child's statement, giving reasons.



I think that any three of these pieces could have been from Tayo's triangle.



I disagree. I think that the pieces that measure 100°, 70° and 10° are the only three pieces that could have come from Tayo's triangle.

Important note: angles not drawn to scale, do not use a protractor.

- 1) Always, sometimes or never true?  
Prove it!



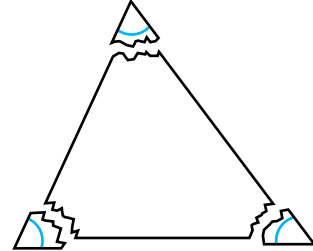
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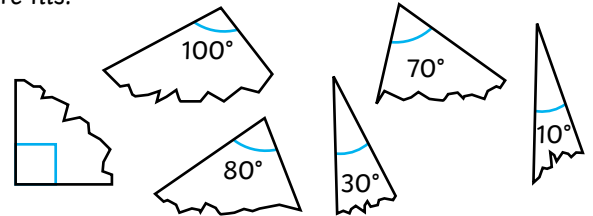


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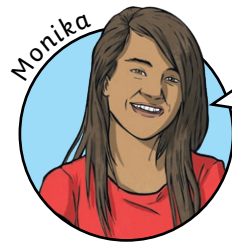
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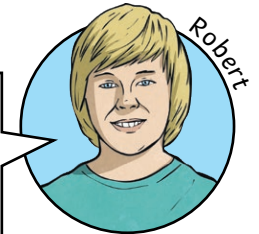
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1) What are the missing angles?



All these angles are from a type of scalene triangle.

Angle  $c$  is a right angle.

Angle  $a$  is an acute angle.

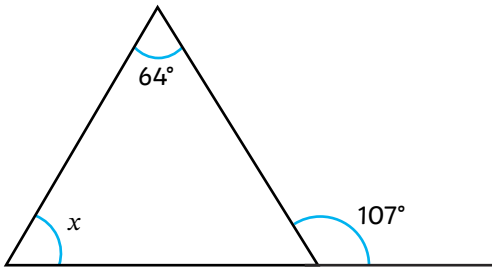
Angle  $c$  is five times the size of angle  $b$ .

$a =$  \_\_\_\_\_

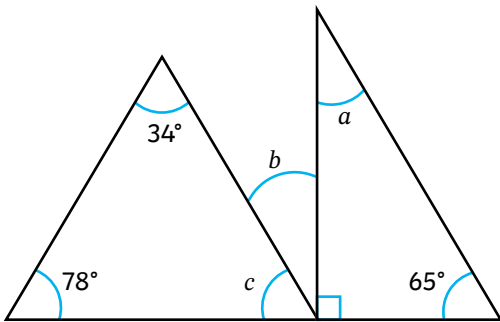
$b =$  \_\_\_\_\_

$c =$  \_\_\_\_\_

2) Calculate the value of angle  $x$ .



3) Calculate the value of the missing angles. Use the box for your working out.

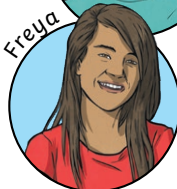


4) Investigate whether each of these children's statements are true or false. Explain your answer fully.

a) George says, "Each angle in my triangle is an odd number."



b) Freya says, "My triangle has one right angle, one obtuse angle and one acute angle."



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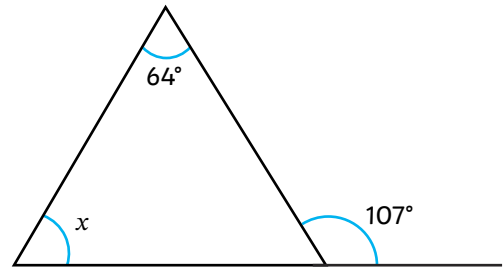
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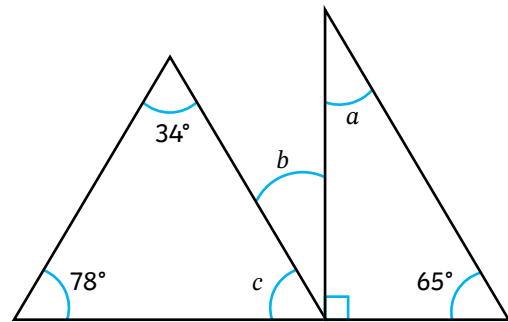
$b =$  \_\_\_\_\_

$c =$  \_\_\_\_\_

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