



Aberdare Community School
Mathematics Department

WJEC GCSE

Higher – Calculator

Shape

Congruent triangles

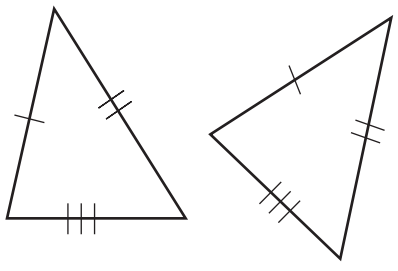
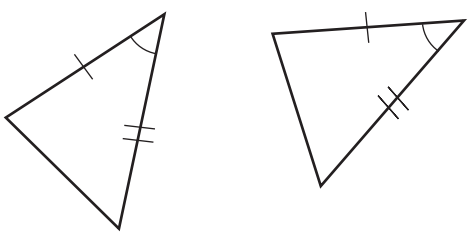
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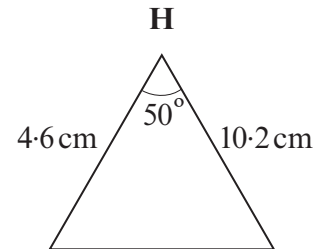
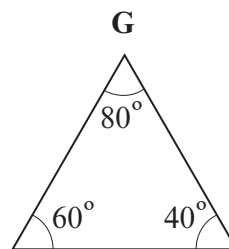
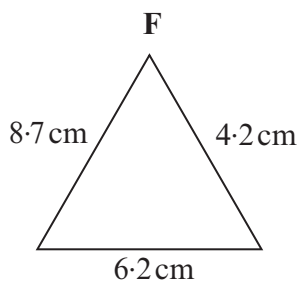
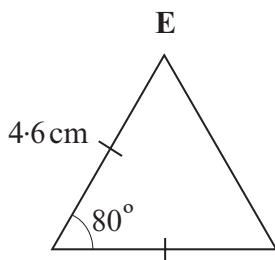
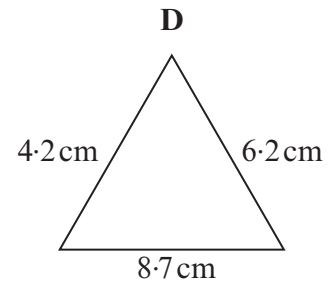
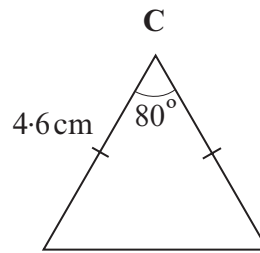
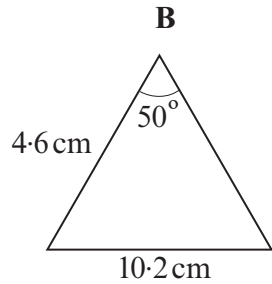
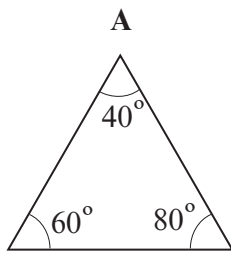
Teacher:

13. State why each of the pairs of triangles below are congruent.

	<p>.....</p> <p>.....</p>
	<p>.....</p> <p>.....</p>

[2]

11. Select two different pairs of congruent triangles from the diagrams below. Give a reason why each of the pairs of triangles are congruent.



Diagrams not drawn to scale

Triangle is congruent to triangle

Reason

.....

[2]

Triangle is congruent to triangle

Reason

.....

[2]



6. The diagram shows a rectangle $ABCD$.

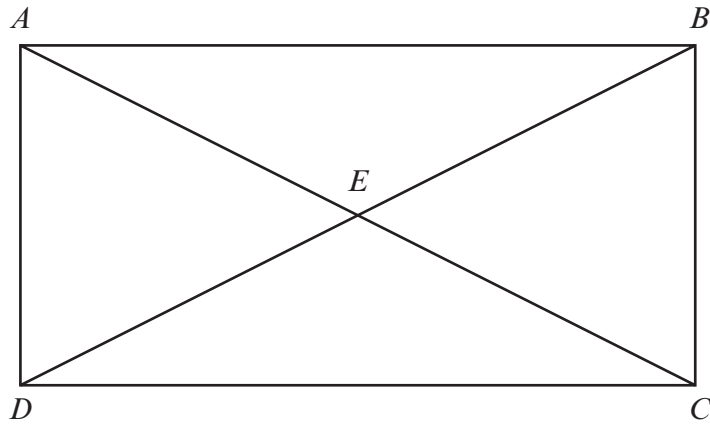


Diagram not drawn to scale

Select 3 **different** pairs of congruent triangles shown in the diagram above and then complete the sentences below for your 3 selections.

Triangle is congruent to triangle

Triangle is congruent to triangle

Triangle is congruent to triangle

[3]

4370
060009



11. The diagrams below show pairs of congruent triangles.
The diagrams are drawn to scale.

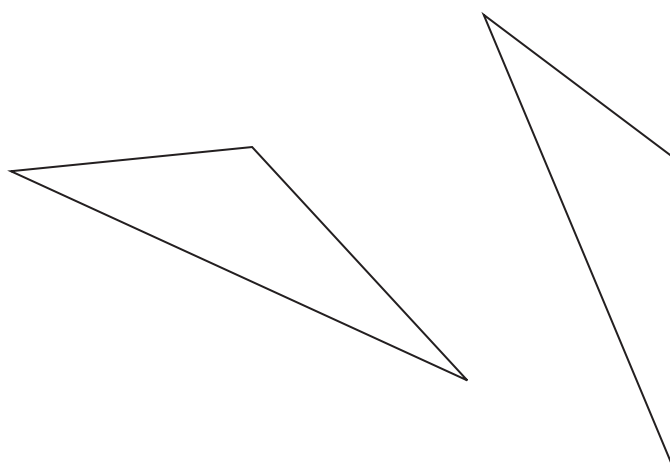
Anwen has made a statement about each of the pairs of triangles.

- (a) "Look, I have measured two of the sides and one of the angles in each triangle. I have enough information to say that the triangles are congruent."

For the statement to be correct, indicate on each triangle the two sides and one angle Anwen could have measured.

Indicate clearly the corresponding sides.

Do not mark any extra detail.

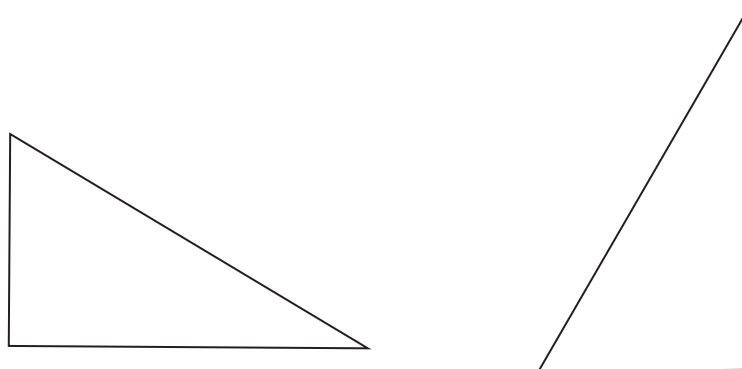


[2]

- (b) "Look, I have measured one angle in each triangle and found that they each measured 90° . Then, I measured the hypotenuse of each triangle and found that they were equal."

Indicate on each triangle

- the mathematical information given in Anwen's statement, and
- mark the **minimum** extra detail required to show that the triangles are congruent.



[2]

(b) You are given the following information about two congruent triangles.

- The triangles are not right-angled triangles.
- In both triangles, one side is of length 3.4 cm and another side is of length 6.2 cm.

One extra piece of information is needed to prove that the triangles are congruent.
There are two possible options for this extra piece of information.
What are the two possible options?

Option 1:

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Option 2:

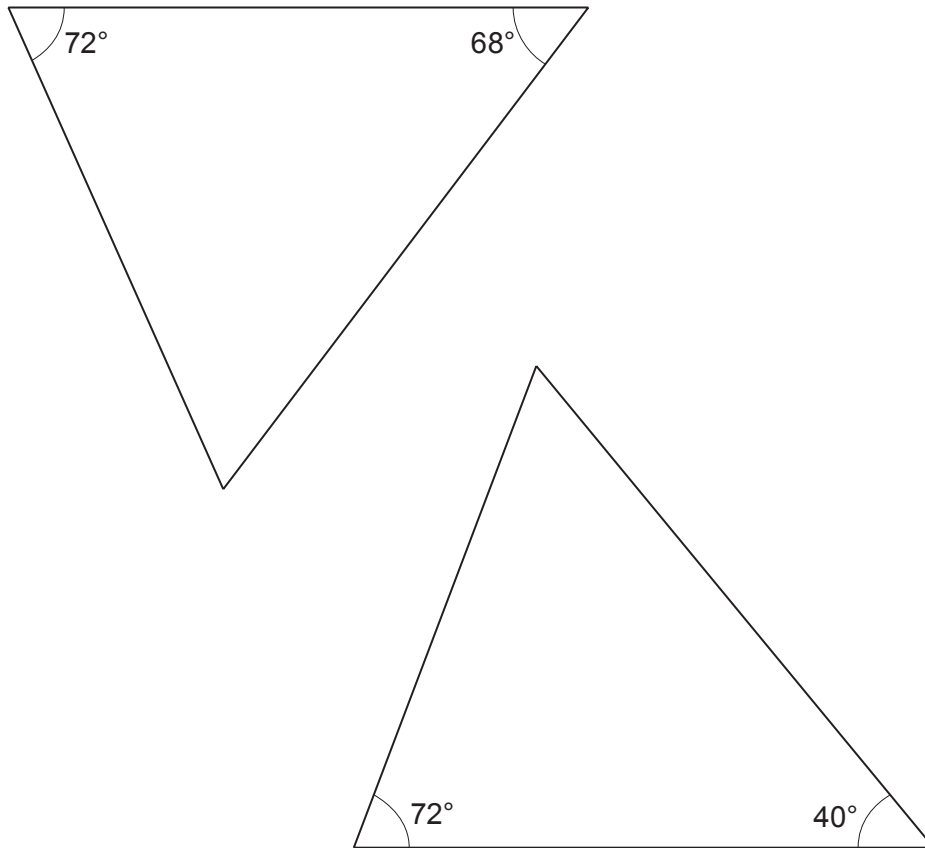
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[2]



13. The two triangles drawn below are not drawn to scale.
Thomas says the triangles are similar but not necessarily congruent.
Is Thomas correct or not?
Explain your answer.

[3]



Diagrams not drawn to scale

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14. AOD and BOC are two diameters of a circle, centre O . Two triangles are formed by joining A to B and C to D .

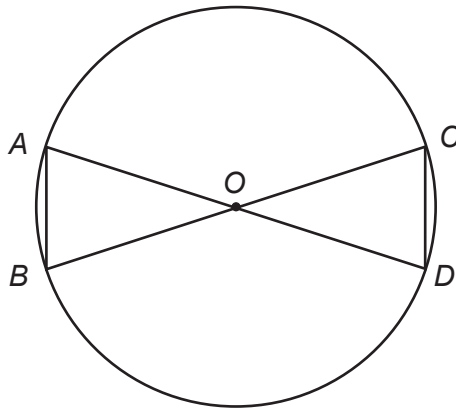


Diagram not drawn to scale

Prove that the triangles are congruent.

[3]

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