

8300

GCSE MATHEMATICS

Foundation and Higher tier – Questions by Topic

Geometry

Understanding congruence and congruent triangles

v1.0

Name _____

Materials

For this paper you must have:

- Mathematical instruments

Information

- The marks for questions are shown in brackets

Advice

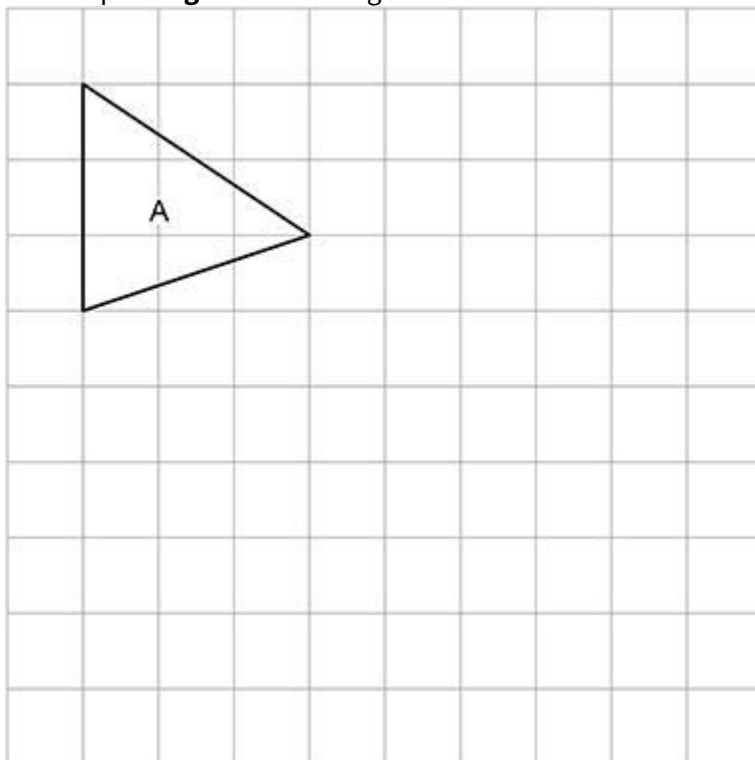
- In all calculations, show clearly how you work out your answer

For question 1 to 5 you may **NOT** use a calculator.



Q1.

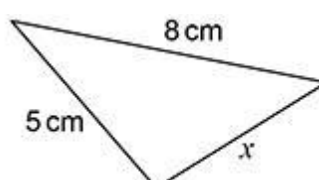
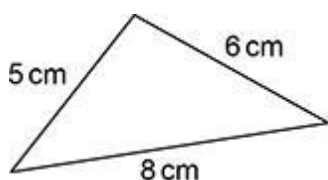
On the grid, draw a shape **congruent** to triangle A.



(Total 1 mark)

Q2.

These two triangles are **congruent**.

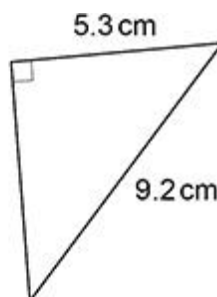
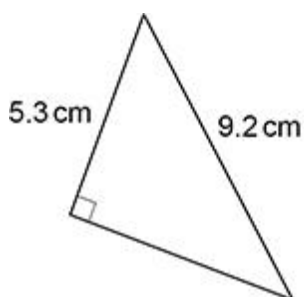


Not drawn accurately

Write down the value of x

(Total 1 mark)

Q3.



Not drawn accurately

Circle the reason why the triangles are congruent.

ASA

RHS

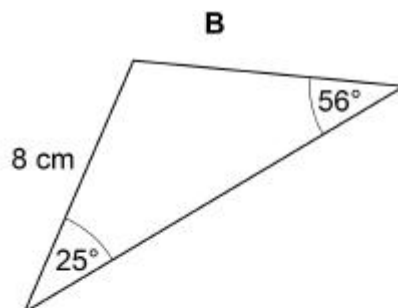
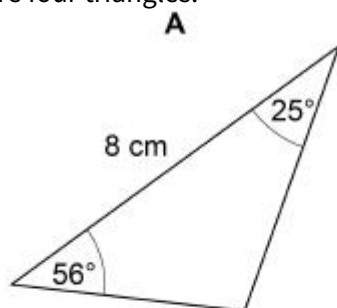
SAS

SSS

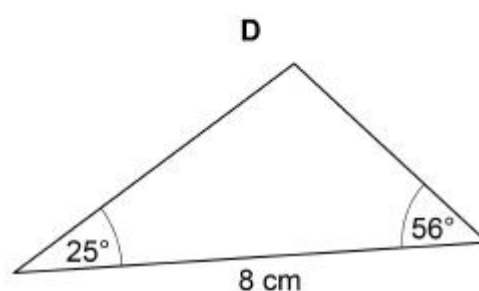
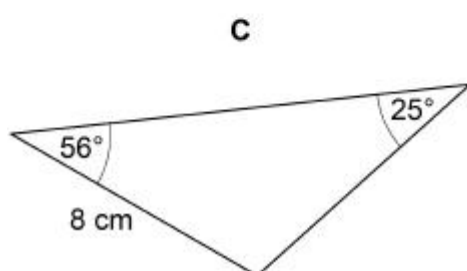
(Total 1 mark)

Q4.

Here are four triangles.



Not drawn accurately



Which **two** triangles are congruent?
Circle **two** letters below.

A

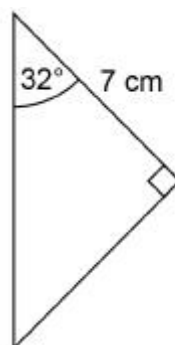
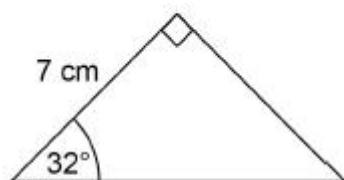
B

C

D

(Total 1 mark)

Q5.



Not drawn accurately

Circle the reason why these triangles are congruent.

SSS

SAS

ASA

RHS

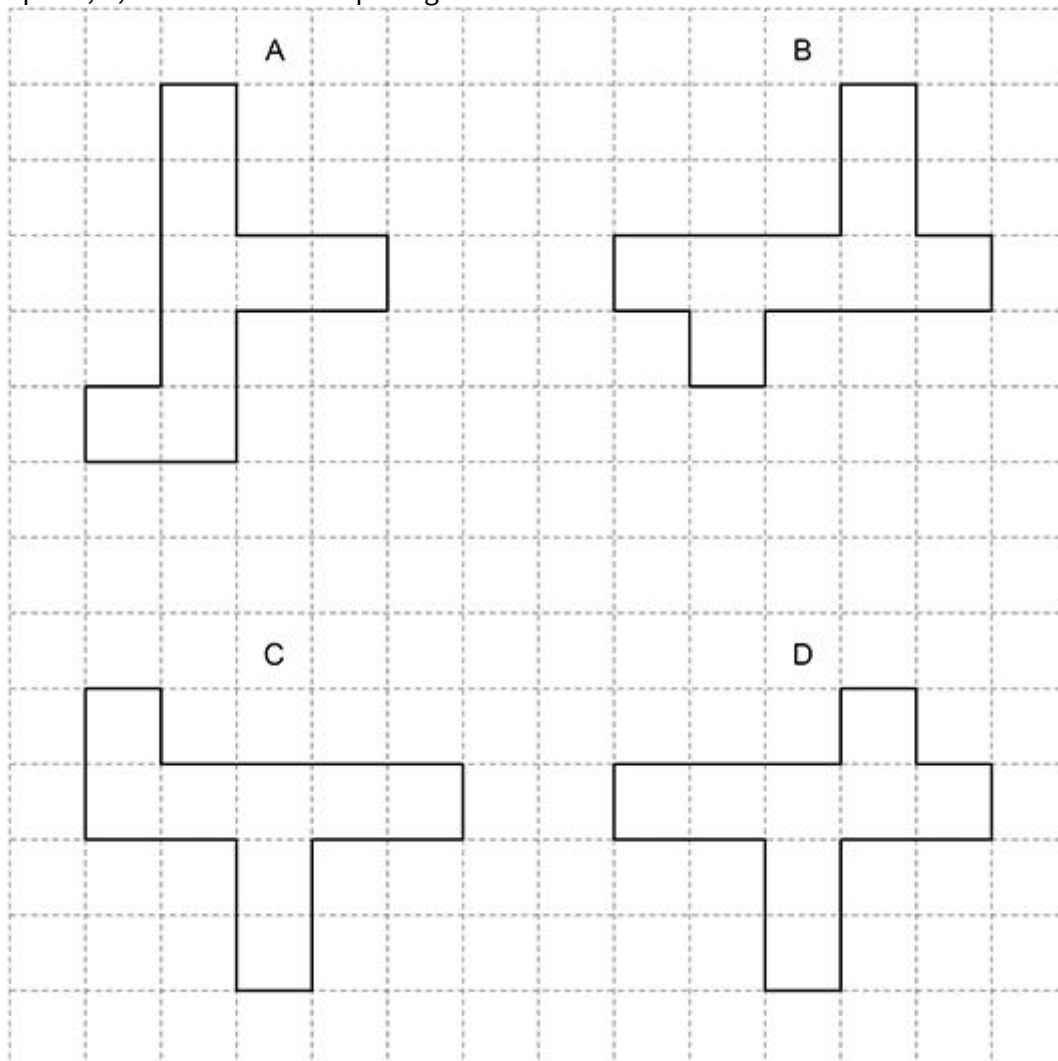
(Total 1 mark)

For the rest of the questions, you may use a calculator.



Q7.

Shapes A, B, C and D are on a square grid.



Which two shapes are congruent?

Circle your answer.

A and C

B and A

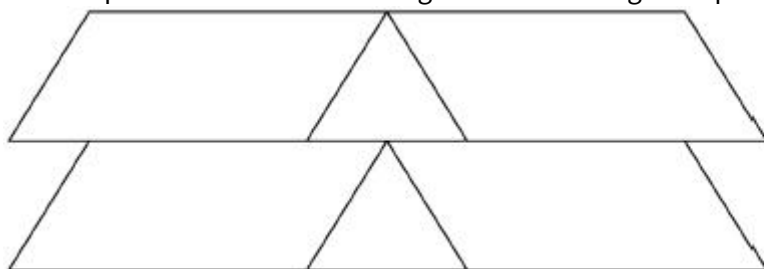
C and D

D and B

(Total 1 mark)

Q8.

This shape is made from two triangles and four congruent parallelograms.



Not drawn
accurately

For each statement, tick the correct box.

(a) The triangles are equilateral.

☐

Must be true

☐

Could be true

☐

Must be false

(1)

(b) The triangles are congruent.

☐

Must be true

☐

Could be true

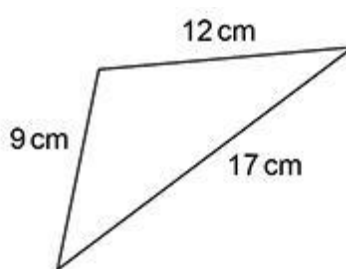
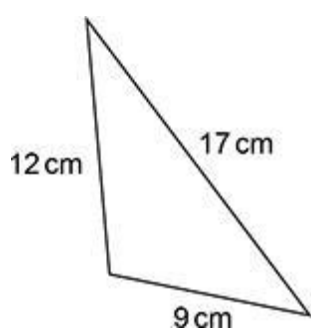
☐

Must be false

(1)

(Total 2 marks)

Q9.



Not drawn
accurately

Circle the reason why these triangles are congruent.

ASA

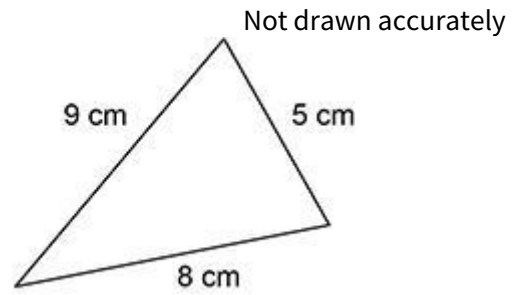
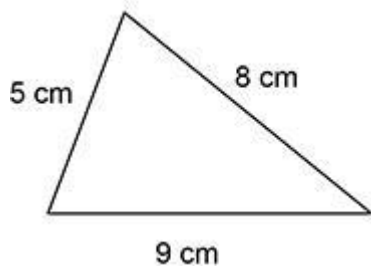
RHS

SAS

SSS

(Total 1 mark)

Q10.



Circle the reason why these triangles are congruent.

ASA

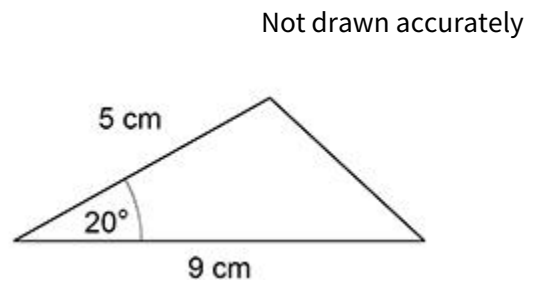
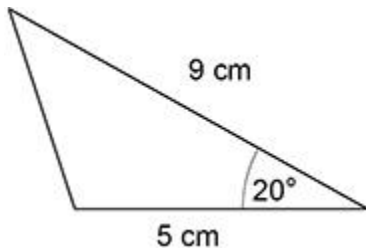
RHS

SAS

SSS

(Total 1 mark)

Q11.



Circle the reason why these triangles are congruent.

RHS

ASA

SSS

SAS

(Total 1 mark)