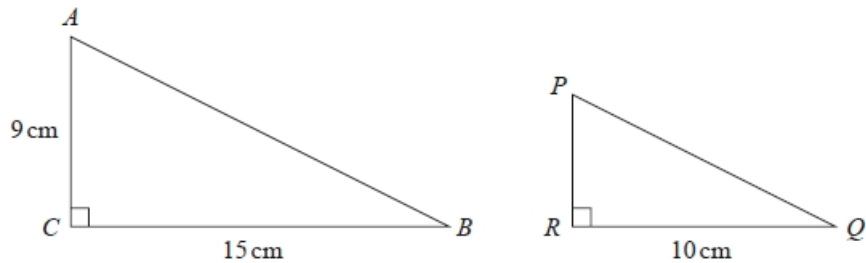


G185 Congruent triangles 1

Q1.

ABC and PQR are similar right-angled triangles.



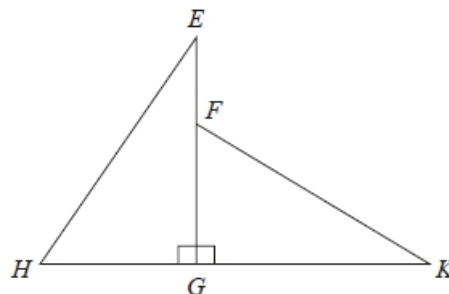
angle $ABC =$ angle PQR

(a) Work out the length of PR .

..... cm

(2)

Triangle EGH is congruent to triangle KGF .



$HK = 10$ cm.

$HG = 4$ cm.

(b) Work out the length of EF .

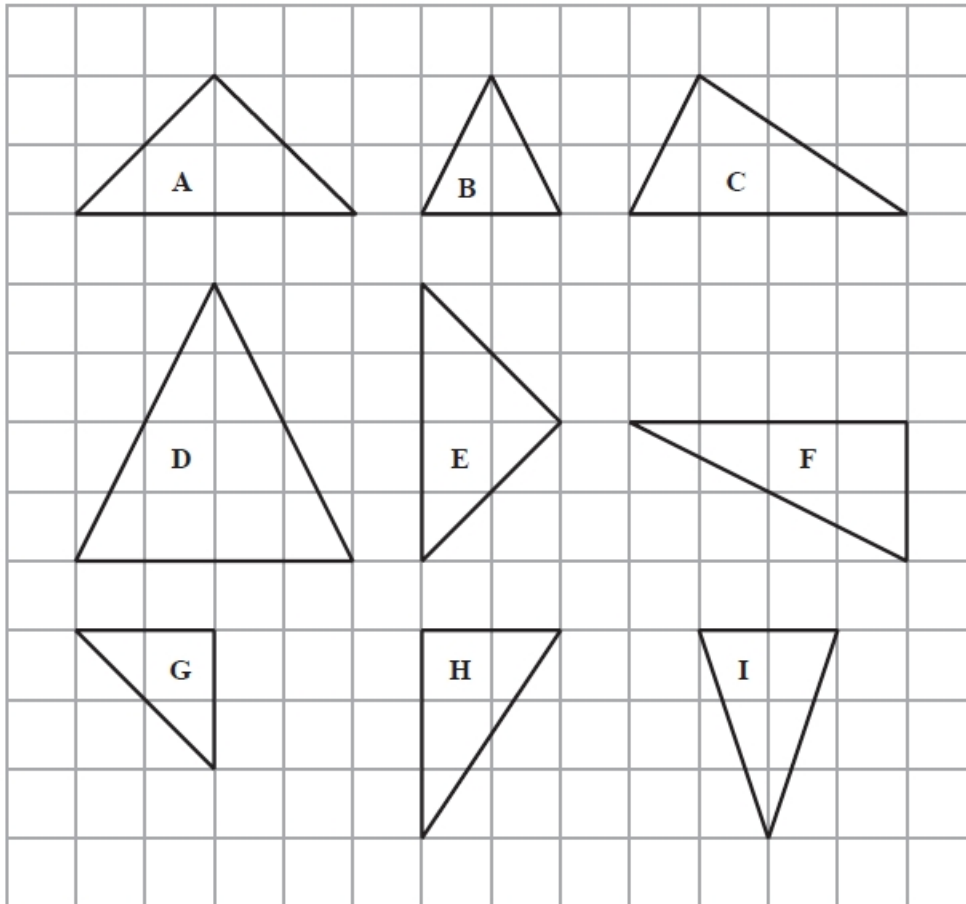
..... cm

(2)

(Total for question = 4 marks)

Q2.

Here are some triangles drawn on a grid.



Two of these triangles are congruent.

(a) Write down the letters of these triangles.

..... and
(1)

One of the triangles is similar to triangle **B**.

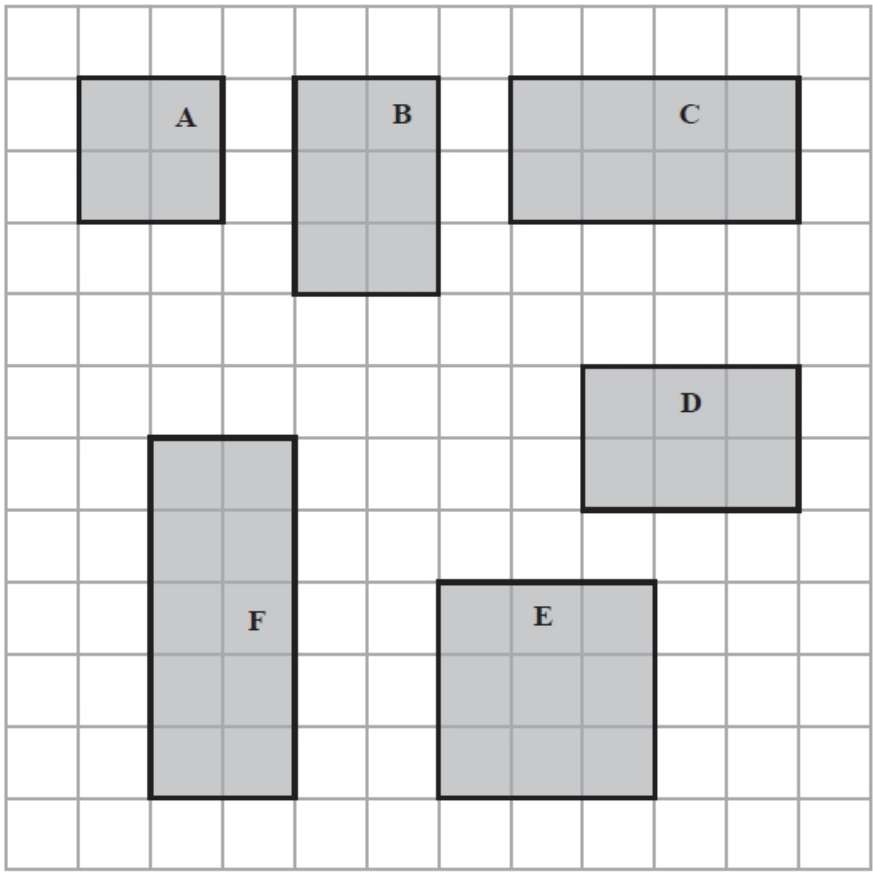
(b) Write down the letter of this triangle.

.....
(1)

(Total for Question is 2 marks)

Q3.

Here are six shapes drawn on a centimetre grid.



Two of the shapes are congruent.

(a) Write down the letters of these two shapes.

..... and
(1)

One of the shapes is similar to shape **A**.

(b) Write down the letter of this shape.

.....
(1)

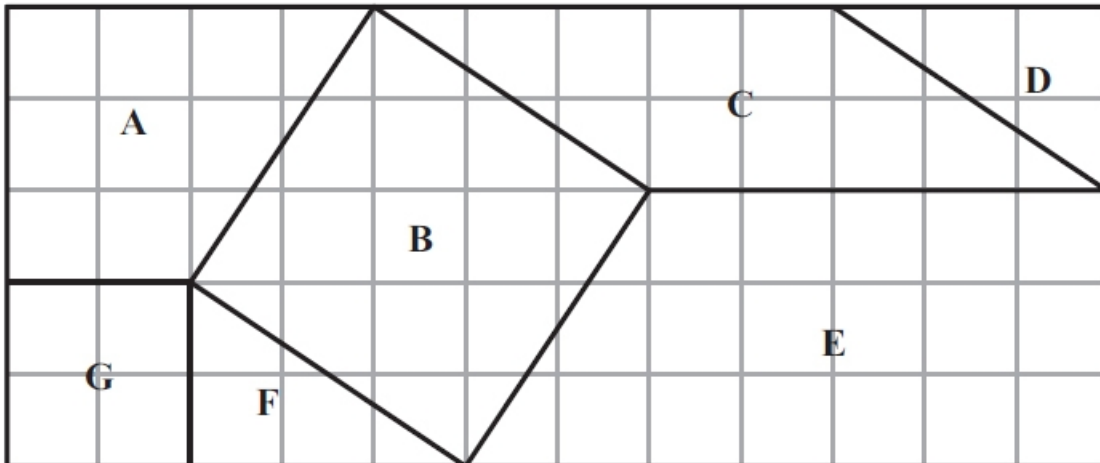
(c) Find the area of shape **F**.

..... cm²
(1)

(Total for question = 3 marks)

Q4.

The diagram shows 7 shapes, **A**, **B**, **C**, **D**, **E**, **F** and **G**, on a centimetre square grid.



(a) What is the mathematical name of shape **E**?

.....
(1)

(b) Write down the letters of the two shapes which are congruent.

..... and
(1)

(c) Mark an obtuse angle on one of the shapes.
Label your angle **x**.

(1)

(d) How many lines of symmetry has shape **B**?

.....
(1)

(e) Work out the area of shape **C**.

.....cm²
(2)

(Total for question = 6 marks)

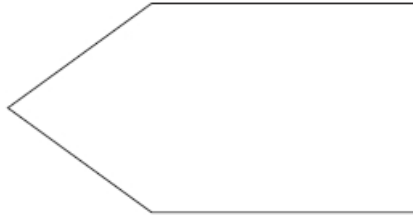
Q5.

(a) Write down the mathematical name of a polygon with 5 sides.

.....

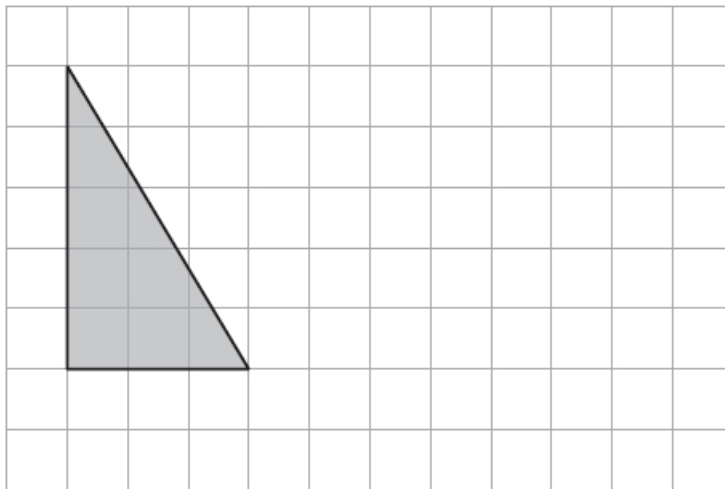
(1)

(b) On the diagram, mark with arrows (\gg) a pair of parallel lines.



(1)

(c) On the grid below, draw a triangle that is congruent to the shaded triangle.

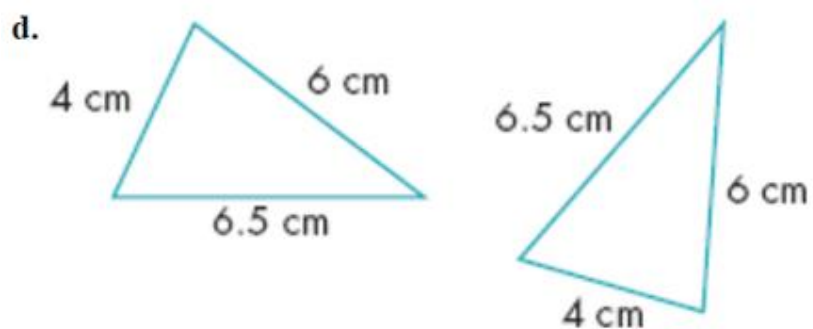
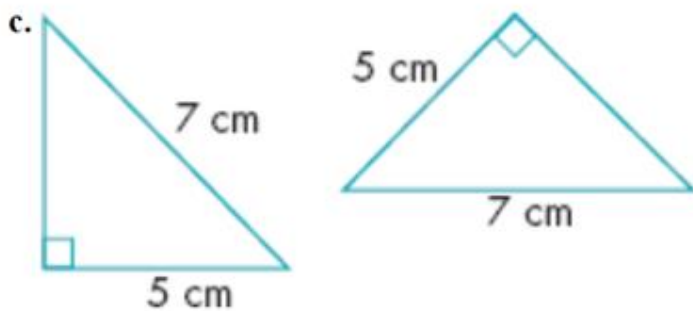
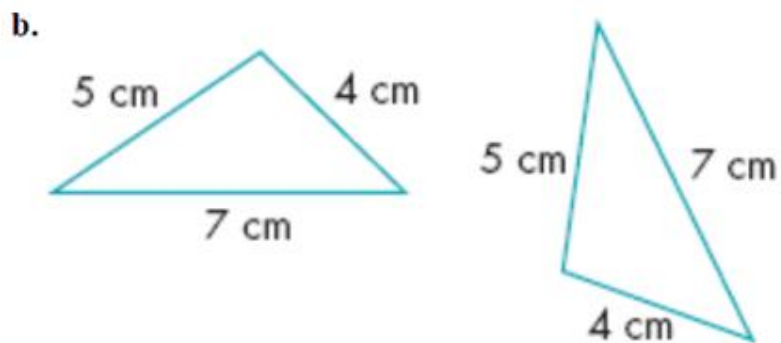
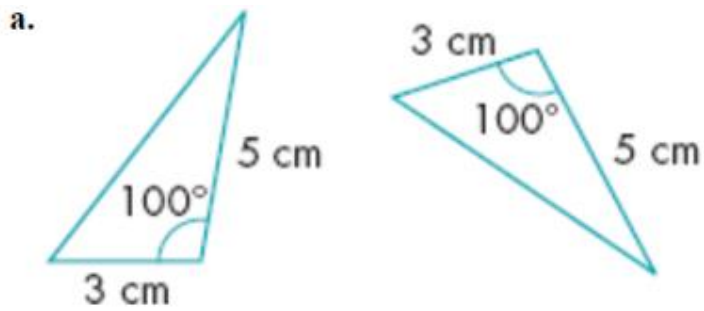


(1)

(Total for question = 3 marks)

Q6.

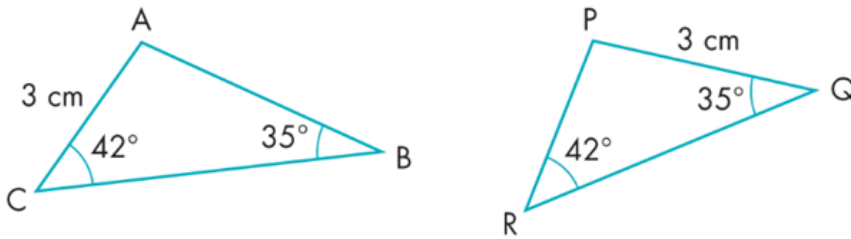
State the conditions that shows that the triangles in each pair are congruent.



(Total for Question is 4 marks)

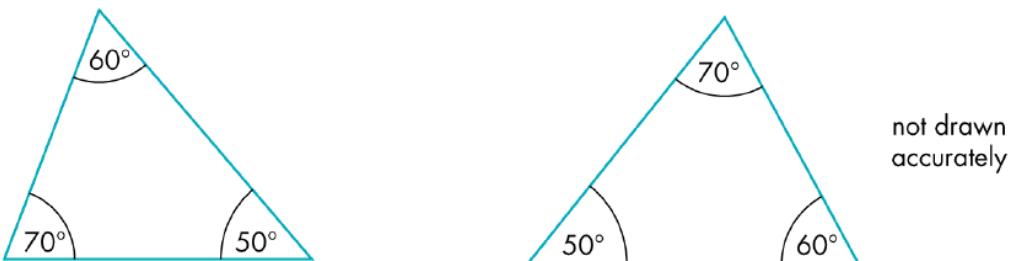
Q7.

Amal says that these two triangles are congruent because two angles and a side are the same. Show that she is wrong.



(Total for Question is 4 marks)

Q8.



Alan says that these two triangles must be congruent.

Bob disagrees and says they might be congruent.

Claire says they cannot be congruent.

Who is correct? Give a reason for your answer.

(Total for Question is 2 marks)