Pearson Edexcel - Tuesday 21 May 2019 - Paper 1 (Non-Calculator) Foundation Tier

1.

28 Here are two rectangles.

$QR = 10\,cm$
$BC = PQ$

The perimeter of *ABCD* is 26 cm
The area of *PQRS* is 45 cm²

Find the length of *AB*.

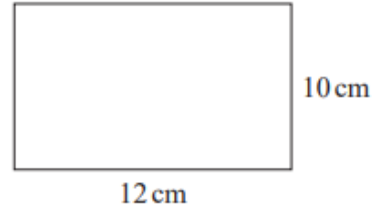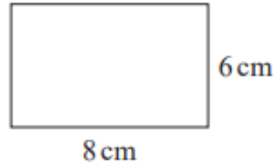.. cm

(Total for Question 28 is 4 marks)

2.

16 Here are two rectangles.

Jim says,

"The two rectangles are similar because $8 + 4 = 12$ and $6 + 4 = 10$"
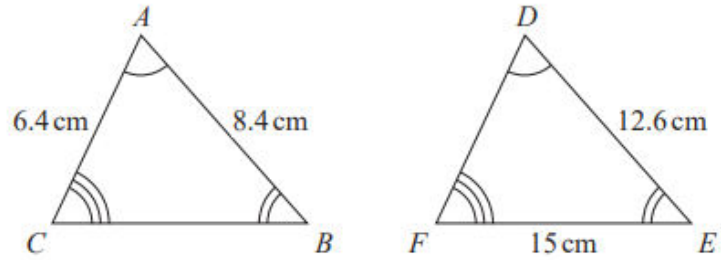
Is Jim correct?
Explain your answer.

....

....

(Total for Question 16 is 1 mark)

3.

27 Triangle *ABC* and triangle *DEF* are similar.

(a) Work out the length of *DF*.

.... cm

(2)

(b) Work out the length of *CB*.

.... cm

(2)

(Total for Question 27 is 4 marks)

4.

9 The smallest angle of a triangle is 25°
The triangle is enlarged by scale factor 3

Ben says,

"The smallest angle of the enlarged triangle is 75° because 25 × 3 = 75"
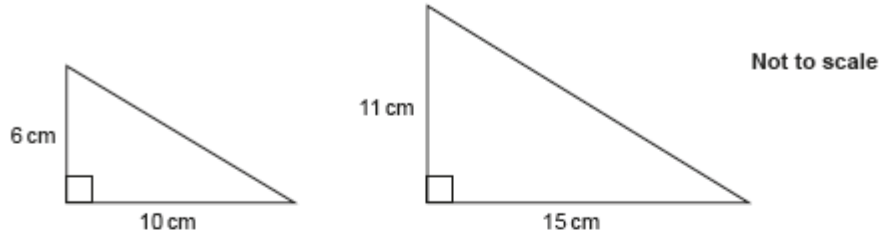
Is Ben right?
Explain your answer.

....

....

(Total for Question 9 is 1 mark)

5.

25 Are these two triangles mathematically similar?
Show how you decide.

Not to scale

6 cm

10 cm

11 cm

15 cm

.... because ....

....

....

.... **[3]**

6.

20 **(a)** Here are three similar triangles.
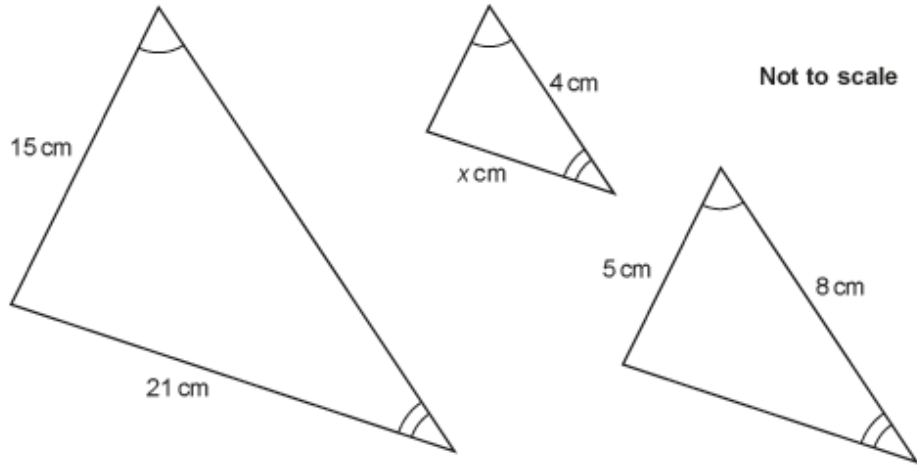
Work out the value of x.

(a) $x =$ .... **[3]**

(b) The diagram shows two right-angled triangles, OAB and OCD.
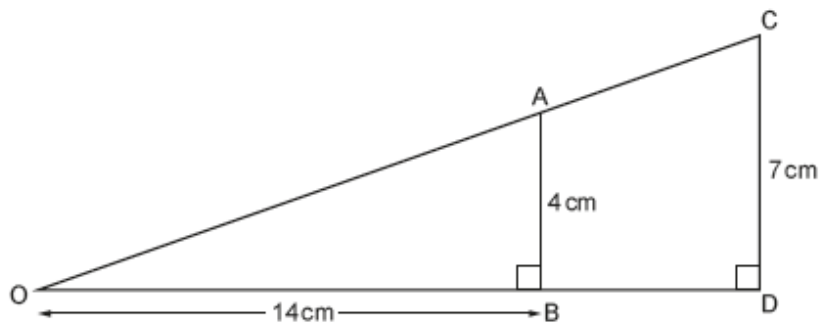
Work out the length of BD.

(b)   .... cm **[3]**

7.

15 In the diagram below, AE and BD are straight lines.

Not to scale
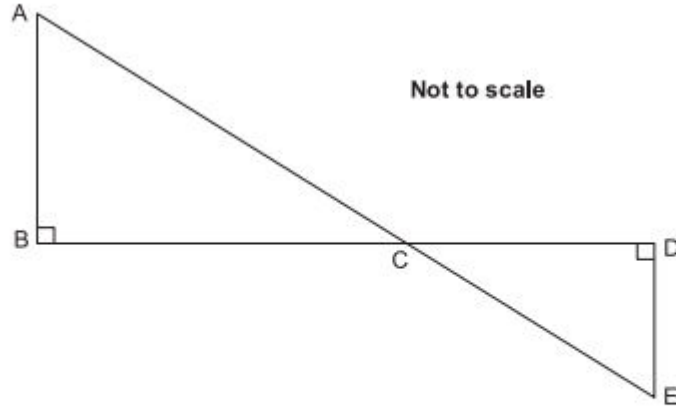
(a) Show that triangles ABC and EDC are similar.

....

....

....

....

....

.... **[3]**

(b) The length DE is 3.5 m.
The ratio BC : CD = 3 : 1.

Find the length AB.

(b) .... m **[2]**

8.

26   These two triangles are similar.

Not drawn
accurately
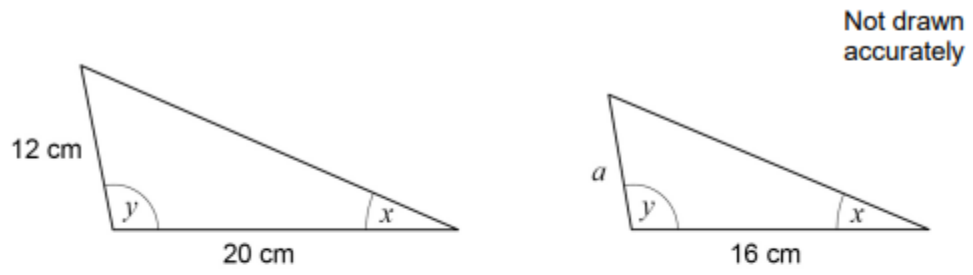
Work out the value of a.

[2 marks]

_____

_____

_____

Answer _____ cm

9.

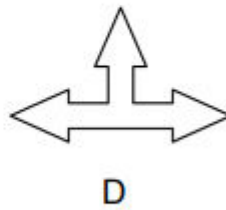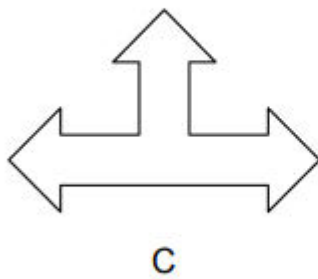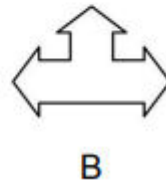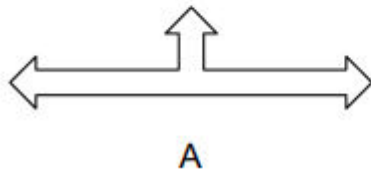**4**   Which shape is **similar** to shape X?
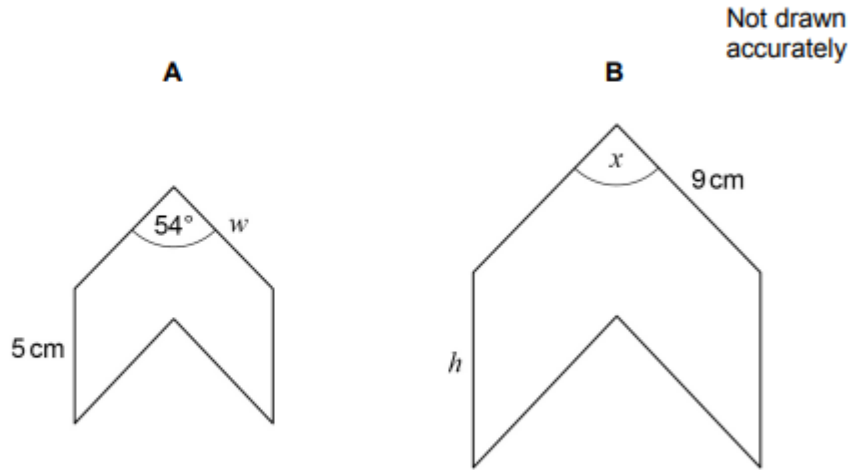
X
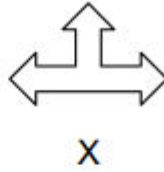
Circle the correct letter.

[1 mark]

A

B

C

D

10.

25   A and B are similar shapes.

B is an enlargement of A with scale factor 1.5

Not drawn
accurately

A   **B**

Work out the values of x, h and w.

[3 marks]

_____

_____

_____

_____

_____

_____

$x =$ _____ degrees

$h =$ _____ cm

$w =$ _____ cm

11.

16   Triangles *ABC* and *DEF* are similar.

Not drawn
accurately
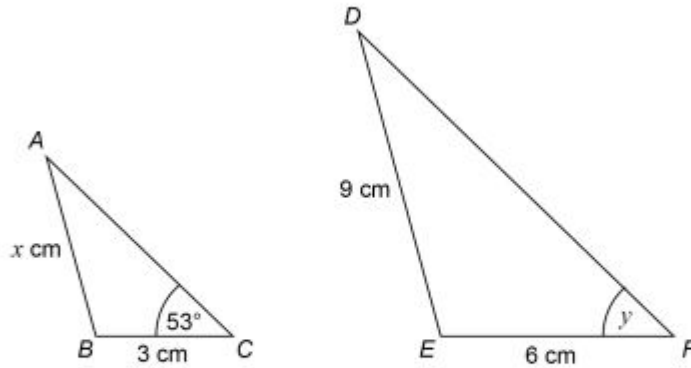
16 (a)   Work out the value of *x*.

[2 marks]

Answer _____

16 (b)   Write down the size of angle *y*.

[1 mark]

Answer _____ degrees