

Similar Shapes (Lengths)

Question Paper

Level	GCSE
Subject	Maths
Exam Board	Edexcel GCSE
Topic	Similar Shapes (Lengths)
Grade Level	Grade 5
Booklet	Question Paper

Time Allowed: 31 minutes

Score: /26

Percentage: /100

Grade Boundaries:

1.

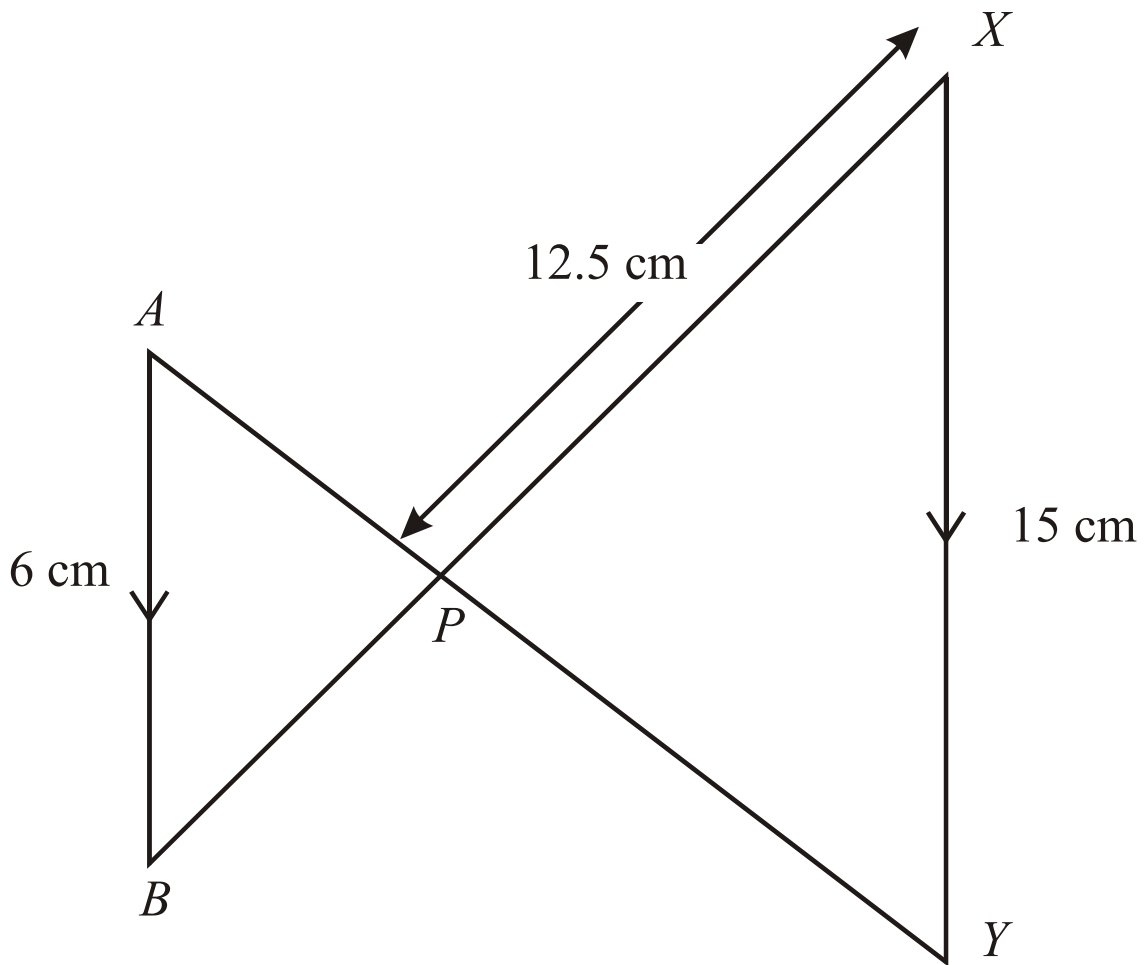


Diagram NOT accurately drawn

AB is parallel to XY.

The lines AY and BX intersect at P.

AB = 6 cm.

XP = 12.5 cm.

XY = 15 cm.

Work out the length of BP.

..... cm (3)

2.

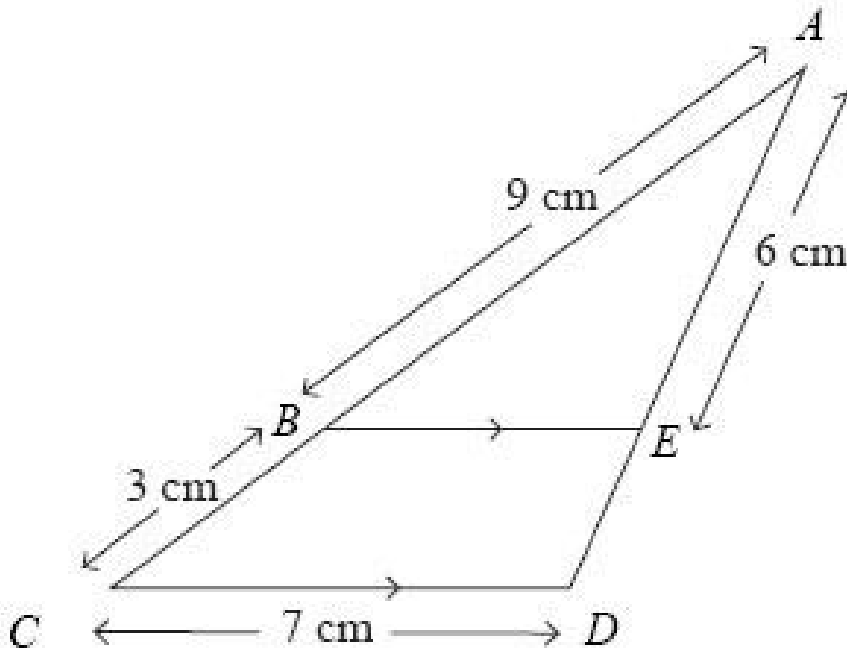


Diagram NOT accurately drawn

BE is parallel to CD.

AB = 9 cm, BC = 3 cm, CD = 7 cm, AE = 6 cm.

(a) Calculate the length of ED.

..... cm (2)

(b) Calculate the length of BE.

..... cm (2)

3.

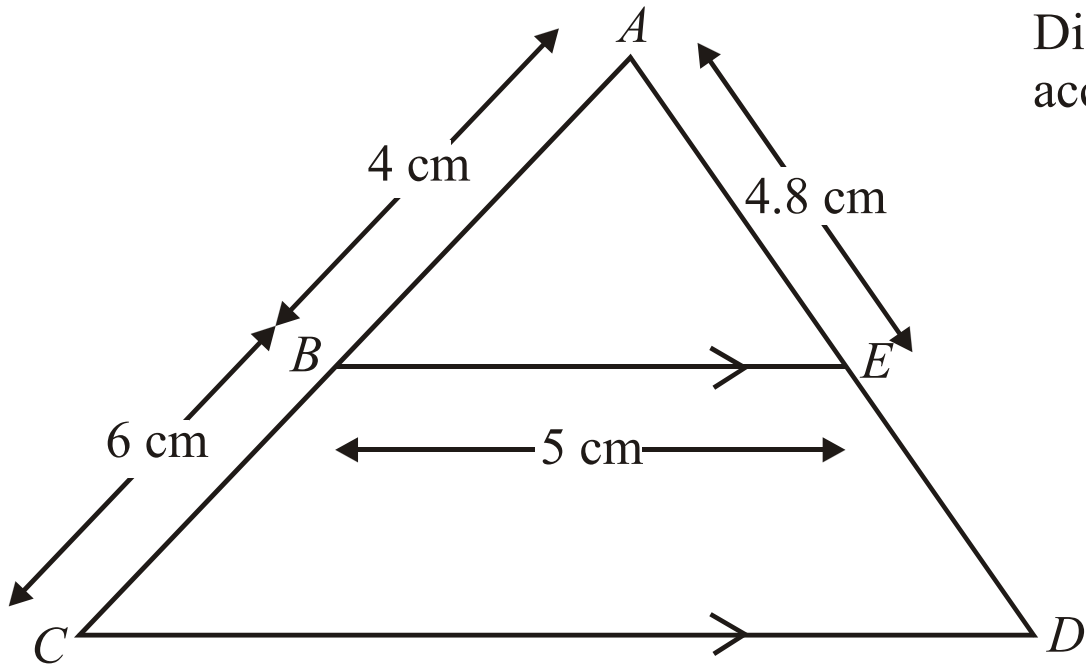


Diagram **NOT** accurately drawn

BE is parallel to CD.

ABC and AED are straight lines.

AB = 4 cm, BC = 6 cm, BE = 5 cm, AE = 4.8 cm.

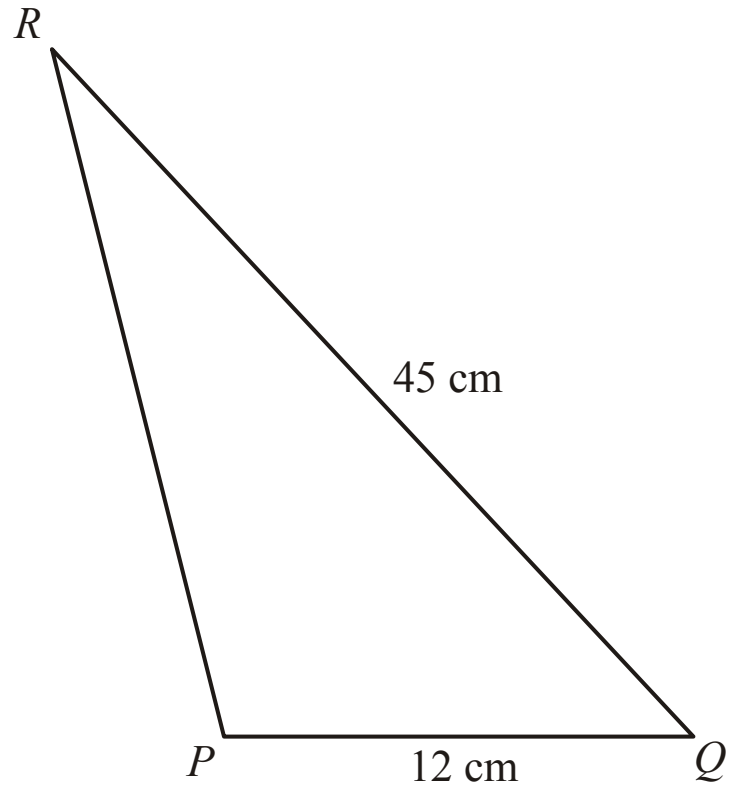
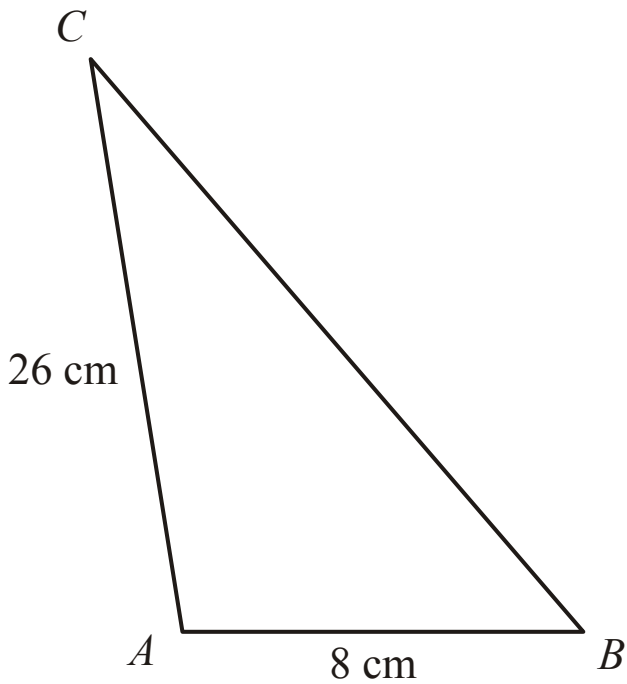
(a) Calculate the length of CD.

..... cm (2)

(b) Calculate the length of ED.

..... cm (2)

4.



The two triangles ABC and PQR are mathematically similar.

Angle A = angle P.

Angle B = angle Q.

AB = 8 cm.

AC = 26 cm.

PQ = 12 cm.

QR = 45 cm.

(a) Calculate the length of PR.

..... cm (2)

(b) Calculate the length of BC.

..... cm (2)

5.

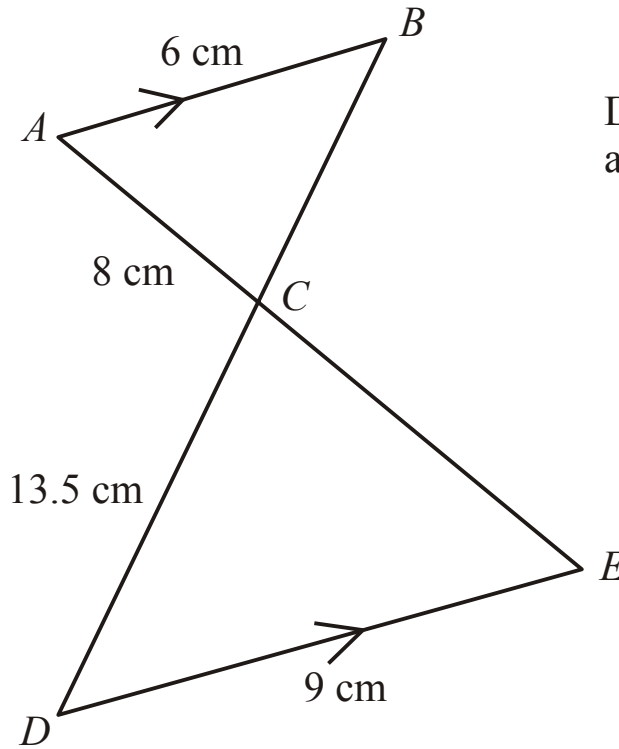


Diagram **NOT**
accurately drawn

AB is parallel to DE.
ACE and BCD are straight lines.
AB = 6 cm,
AC = 8 cm,
CD = 13.5 cm,
DE = 9 cm.

(a) Calculate the length of CE.

..... cm (2)

(b) Calculate the length of BC.

..... cm (2)

6.

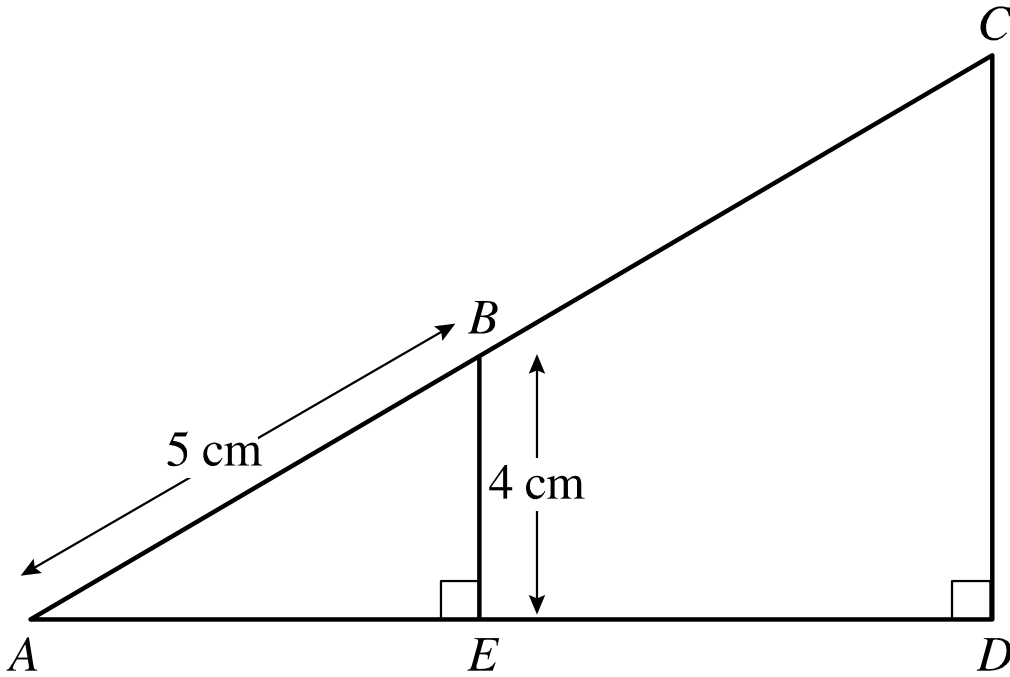


Diagram **NOT**
accurately
drawn

$$AB: AC = 1: 3$$

(a) Calculate the length of CD.

..... cm (2)

(b) Calculate the length of BC.

..... cm (2)

7.



A 20 Euro note is a rectangle 133 mm long and 72 mm wide.

A 500 Euro Note is a rectangle 160 mm long and 82 mm wide.

Show that the two rectangles are not mathematically similar.

(3)