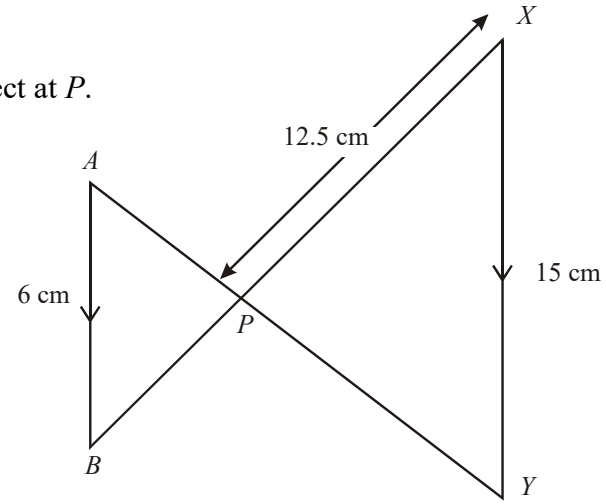
1 *AB* is parallel to *XY*.
The lines *AY* and *BX* intersect at *P*.
AB = 6 cm.
XP = 12.5 cm.
XY = 15 cm.

Work out the length of *BP*.



(3 marks)

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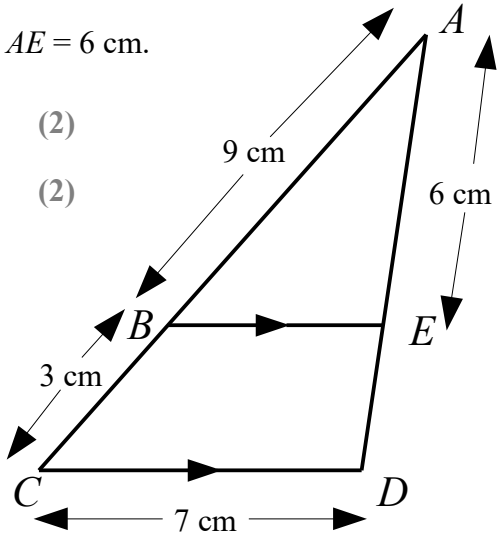
2 *BE* is parallel to *CD*.
AB = 9 cm, *BC* = 3 cm, *CD* = 7 cm, *AE* = 6 cm.

(a) Calculate the length of *ED*. **(2)**

(b) Calculate the length of *BE*. **(2)**



(4 marks)

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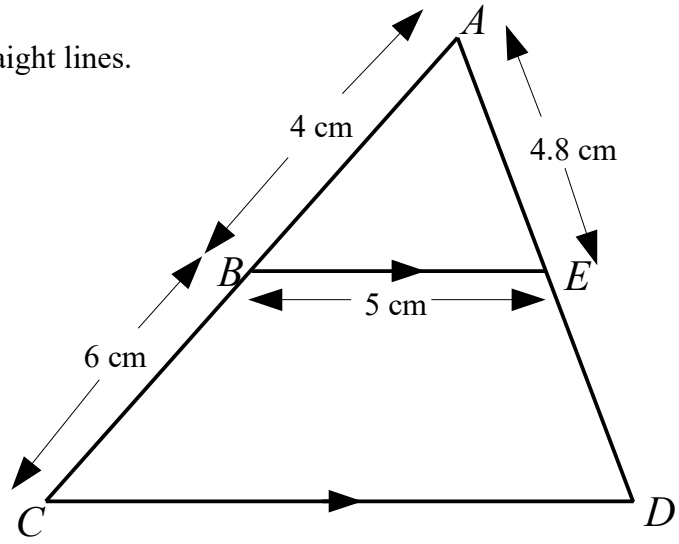
3 *BE* is parallel to *CD*.
ABC and *AED* are straight lines.

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



(a) Calculate the length of *CD*. **(2)**

(b) Calculate the length of *ED*. **(2)**

(4 marks)

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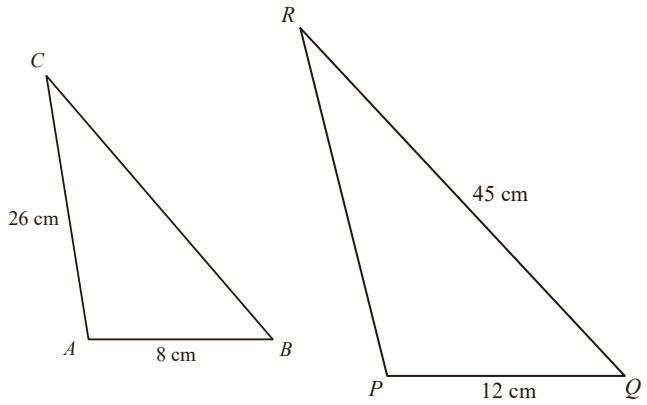
4 The two triangles ABC and PQR are mathematically similar.



Angle A = angle P.
Angle B = angle Q.

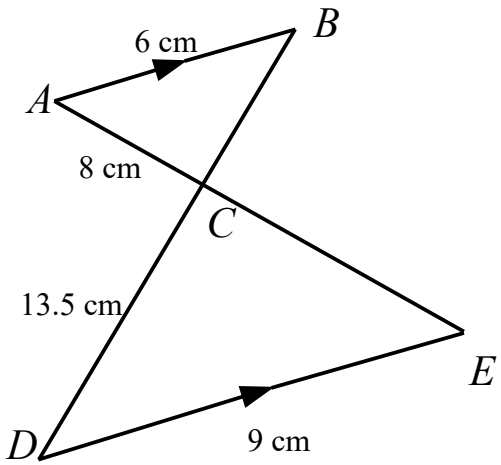
AB = 8 cm.
AC = 26 cm.
PQ = 12 cm.
QR = 45 cm

(a) Calculate the length of *PR*.

(b) Calculate the length of *BC*.

(4 marks)

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

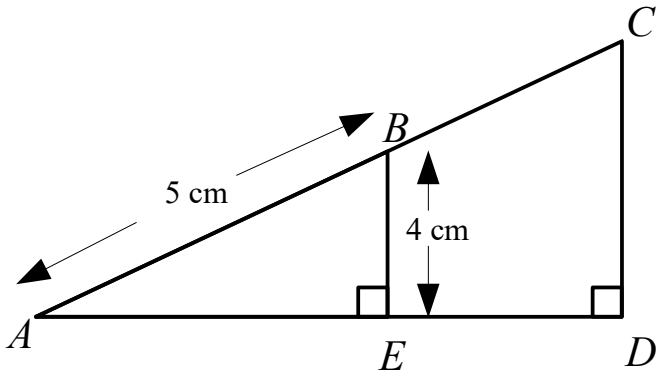


(a) Calculate the length of *CE*.

(b) Calculate the length of *BC*.

(4 marks)

6



AB: AC = 1: 3

(a) Calculate the length of *CD*. **(2)**

(b) Calculate the length of *BC*. **(2)**

(4 marks)

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 marks)