Name: _____

ASM Tuition Academy

Similar Shapes

Instructions:

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided
  - There may be more space than you need.
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all you're working out.**

Information:

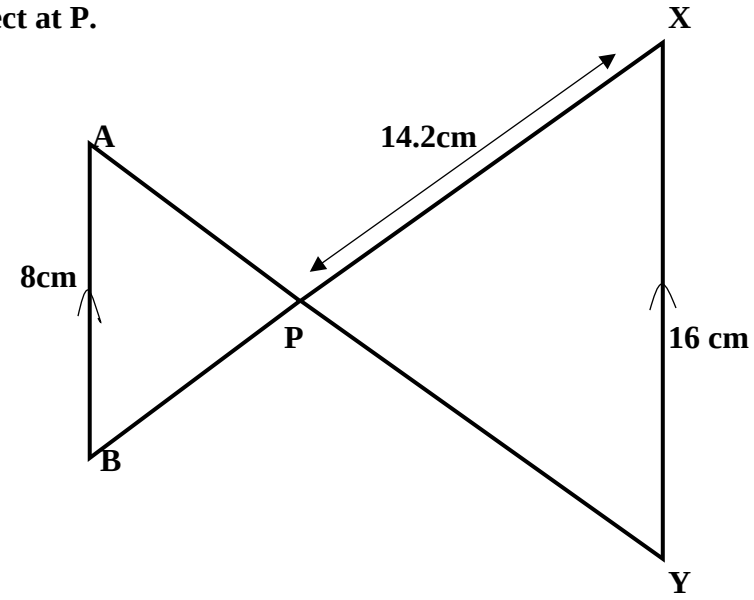
- The marks for each question are shown in brackets
  - use this as a guide as to how much time to spend on each question.

Advice:

- Read each question carefully before you start to answer it.
- Keep an eye on time.
- Try to answer every question.
- Check your answers if you have time at the end.

1. **AB is parallel to XY.**
   The lines AY and BX intersect at P.
   AB = 8 cm.
   XP = 14.2 cm.
   XY = 16 cm.

   Work out the length of BP.

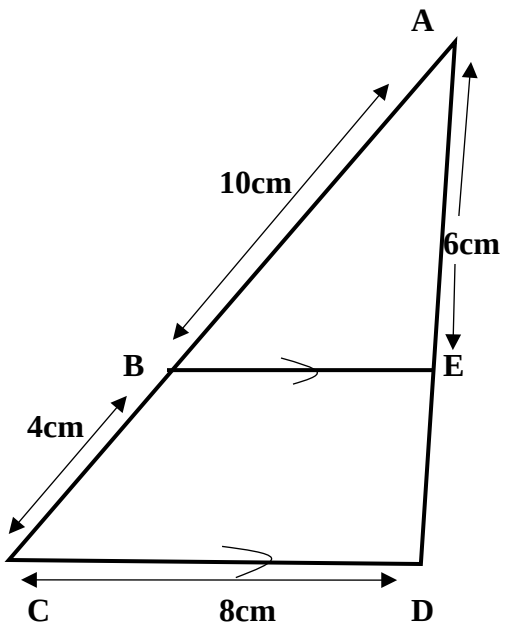


_____ **cm**

(Total for question 1 is 3 marks)

2. BE is parallel to CD.
AB = 10cm, BC = 4cm, CD = 8cm, AE = 6cm

a) Calculate the length of ED.



_____ **cm**

b) Calculate the length of BE.

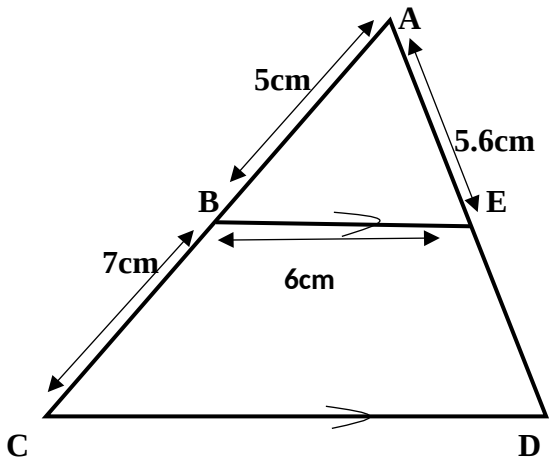
_____ **cm**

(Total for question 2 is 4 marks)

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

AB = 5 cm
BC = 7 cm
BE = 6 cm
AE = 5.6 cm

a) Calculate the length of CD.



_____ **cm**

b) Calculate the length of ED.

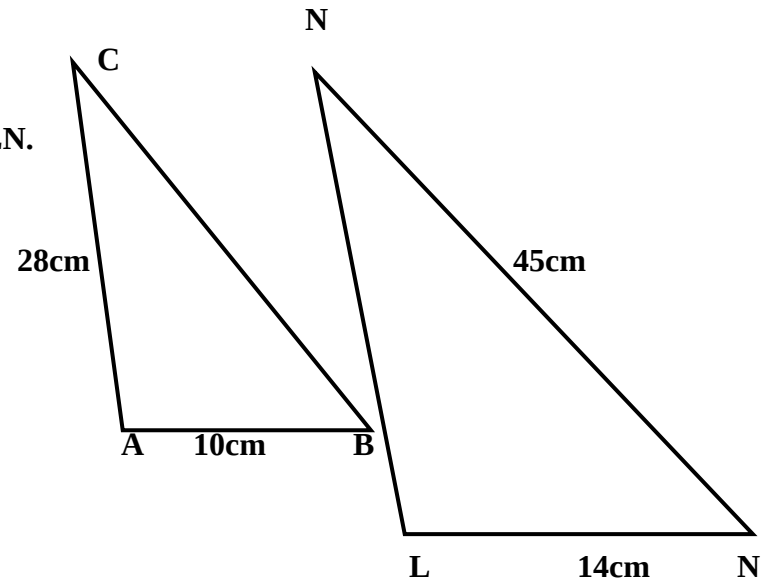
_____ **cm**

(Total for question 3 is 4 marks)

4. The two triangles ABC and LMN are mathematically similar.

Angle A = angle L.
Angle B = angle M.

AB = 10 cm
AC = 28 cm
LM = 14 cm
MN = 45 cm



a) Calculate the length of LN.

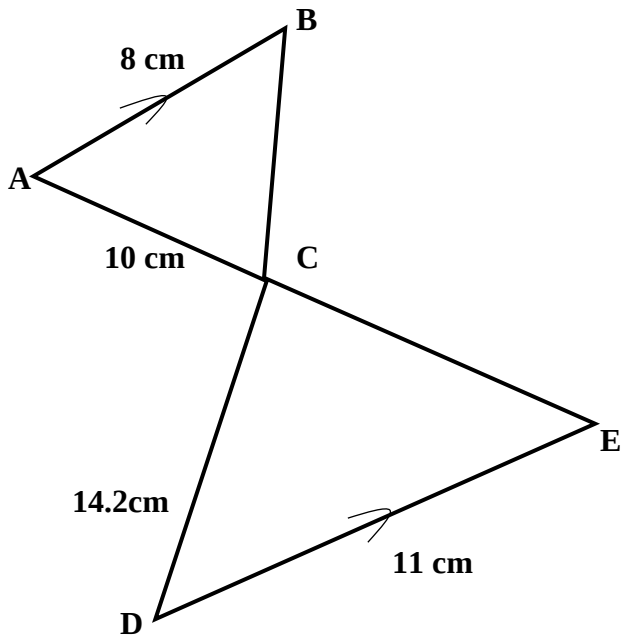
_____ **cm**

b) Calculate the length of BC.

_____ **cm**

(Total for question 4 is 4 marks)

5. AB is parallel to DE.
ACE and BCD are straight lines.
AB = 8 cm
AC = 10 cm
CD = 14.2 cm
DE = 11 cm



a) Calculate the length of CE.

_____ **cm**

b) Calculate the length of BC.

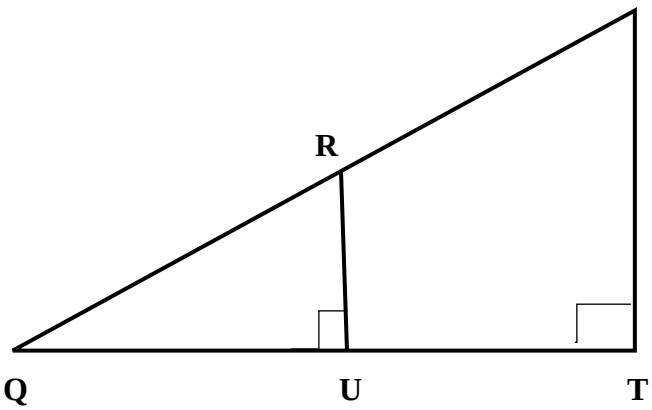
_____ **cm**

(Total for question 5 is 4 marks)

6. QR : QS = 1 : 3

RU = 3 cm; QR = 4 cm

a) Calculate the length of ST.



_____ cm

b) Calculate the length of RS.

_____ cm

(Total for question 6 is 4 marks)

7. **A 20 Dollar note is a rectangle 120 mm long and 70 mm wide.**
   A 500 Dollar note is a rectangle 162 mm long and 84 mm wide.

   Show that the two rectangles are not mathematically similar

(Total for question 7 is 3 marks)