JP Maths Revision

Attempt the paper before watching the solutions!

https://www.youtube.com/@JPMathsRevision

FOUNDATION / HIGHER TIER

Similar Triangles

INSTRUCTIONS

- Use **black ink** or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- You must **show all your working.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.

INFORMATION

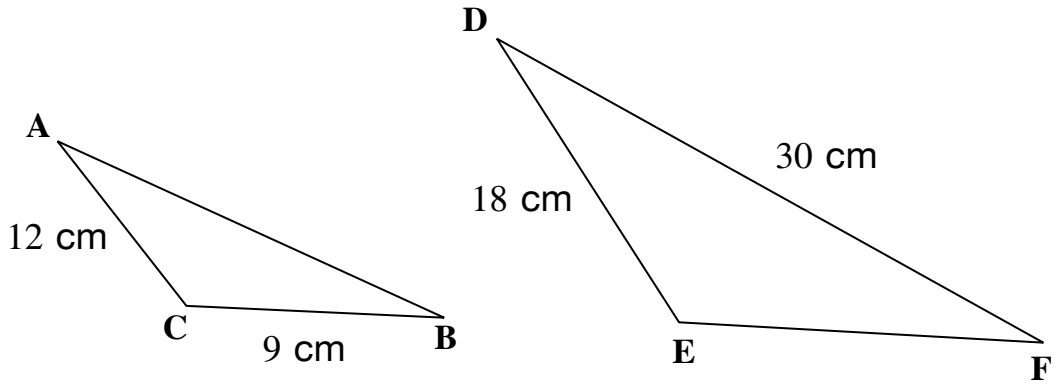
- The marks for **each** question are shown in brackets– *use this as a guide as to how much time to spend on each question.*

ADVICE

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

You've got this!

1. Triangles ABC and DEF are mathematically similar.



(a) Find the length of EF

cm

.....

(2)

(b) Find the length of AB

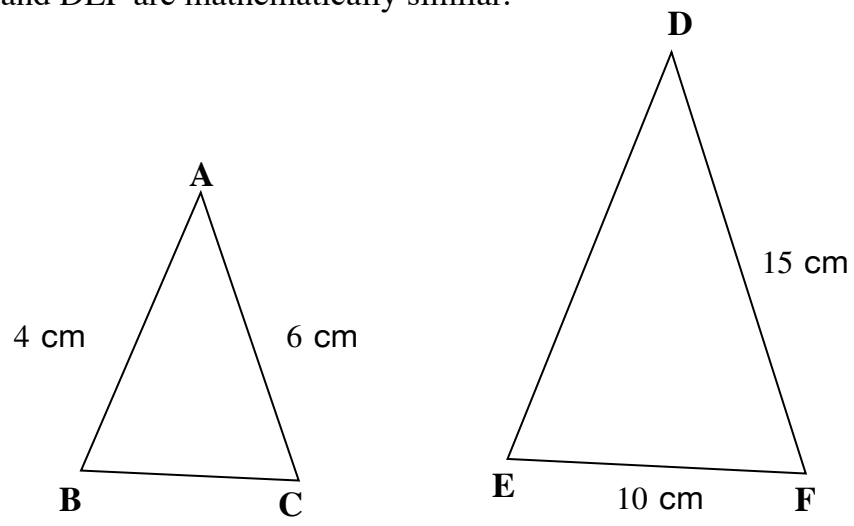
cm

.....

(2)

(Total for Question 1 is 4 marks)

2. Triangles ABC and DEF are mathematically similar.



(a) Find the length of BC

cm

.....

(2)

(b) Find the length of DE

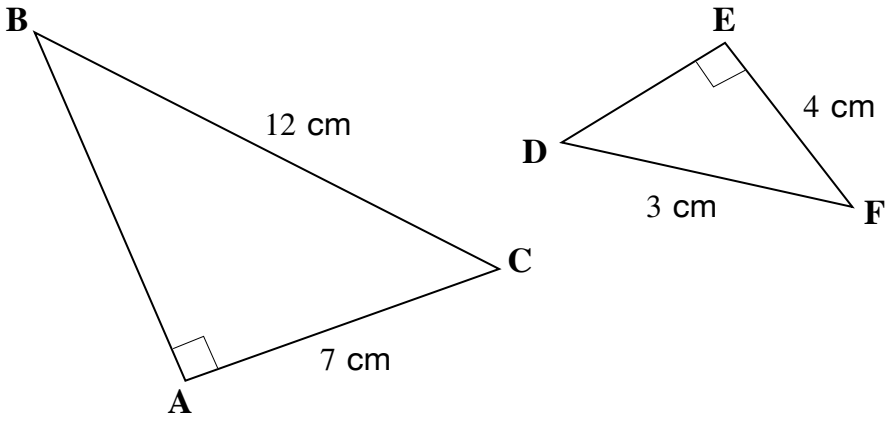
cm

.....

(2)

(Total for Question 2 is 4 marks)

3. Triangles ABC and DEF are mathematically similar.



(a) Find the length of AB

cm

.....

(2)

(b) Find the length of DE

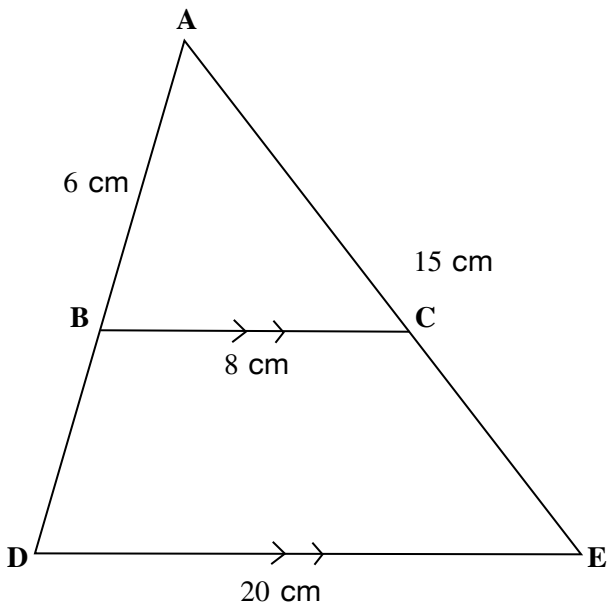
cm

.....

(2)

(Total for Question 3 is 4 marks)

4. Triangles ABC and ADE are mathematically similar.



AB = 6 cm

AE = 15 cm

BC = 8 cm

DE = 20 cm

(a) Find the length of BD

cm

.....

(3)

(b) Find the length of CE

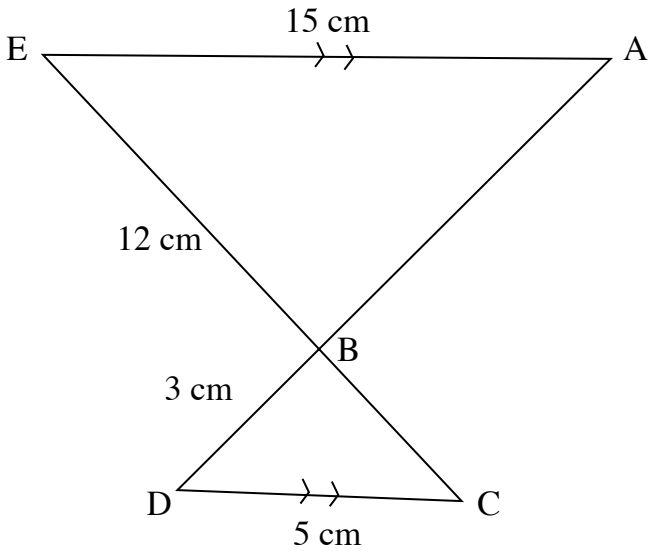
cm

.....

(2)

(Total for Question 4 is 5 marks)

5. Triangles ABE and BCD are mathematically similar.



AE is parallel to CD.

AE = 15 cm

BE = 12 cm

BD = 3 cm

CD = 5 cm

(a) Find the length of AB

..... cm

(2)

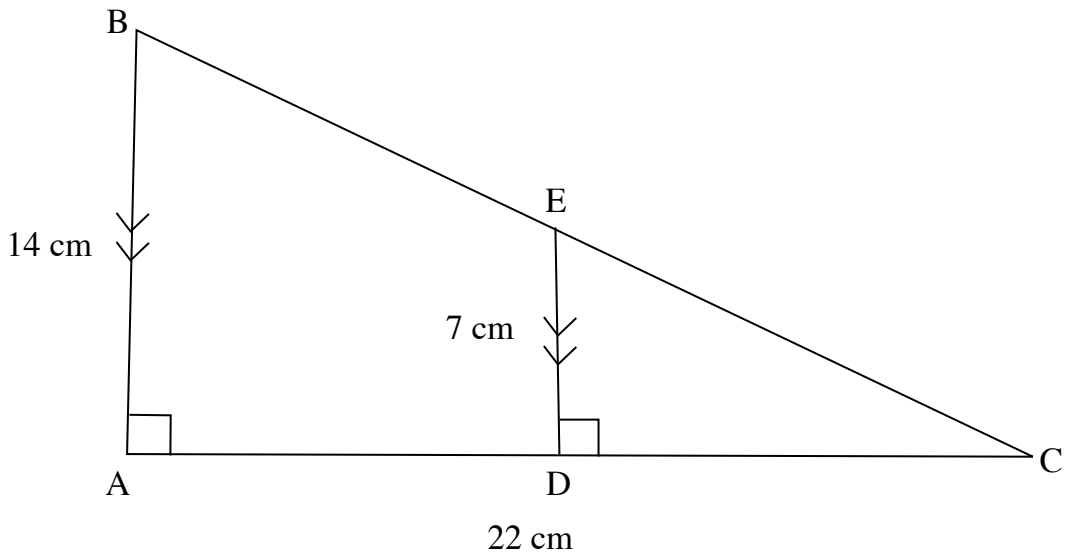
(b) Find the length of BC

..... cm

(2)

(Total for Question 5 is 4 marks)

6. Triangles ABC and CDE are mathematically similar.



AB = 14 cm

ED = 7 cm

AC = 22 cm

(a) Find the length of AD

cm

.....

(3)

(b) Find the length of CE

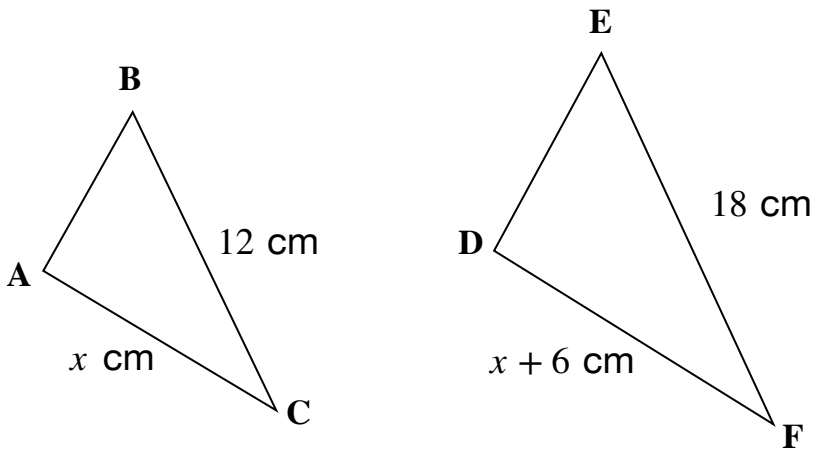
cm

.....

(2)

(Total for Question 6 is 5 marks)

7. Triangles ABC and DEF are mathematically similar.



AC = x cm

BC = 12 cm

DF = $x + 6$ cm

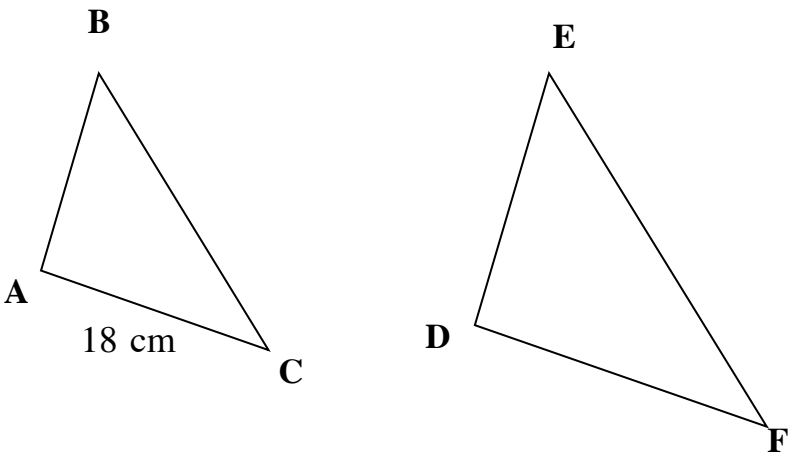
EF = 18 cm

Find the value of x.

.....

(Total for Question 7 is 4 marks)

8. Triangles ABC and DEF are mathematically similar.



Their perimeters are in the ratio 3 : 5.

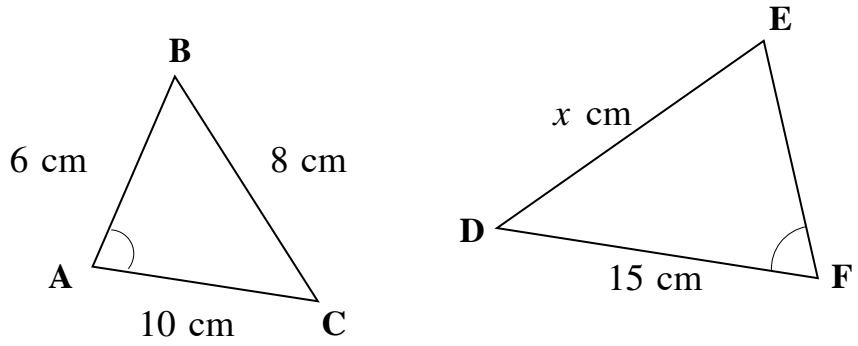
Find the length of DF.

cm

.....

(Total for Question 8 is 2 marks)

9. Triangles ABC and DEF are mathematically similar.



Work out two possible values of x.

.....

(Total for Question 9 is 4 marks)