

Name:

Exam Style Questions



Similar Shapes: Sides

Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

Revision for this topic

www.corbettmaths.com/contents

Video 292

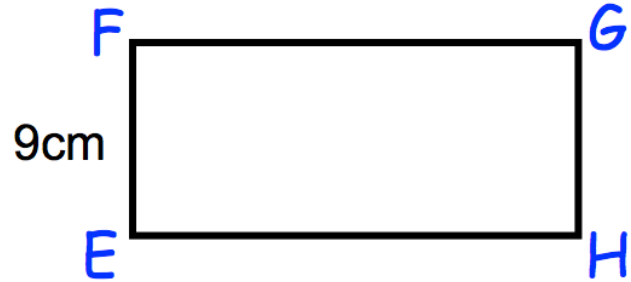
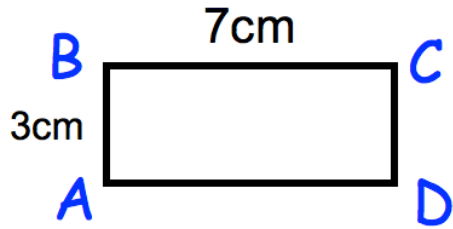
Video 294



1.



Not drawn accurately



Rectangles $ABCD$ and $EFGH$ are similar.

$$AB = 3\text{cm}$$

$$BC = 7\text{cm}$$

$$EF = 9\text{cm}$$

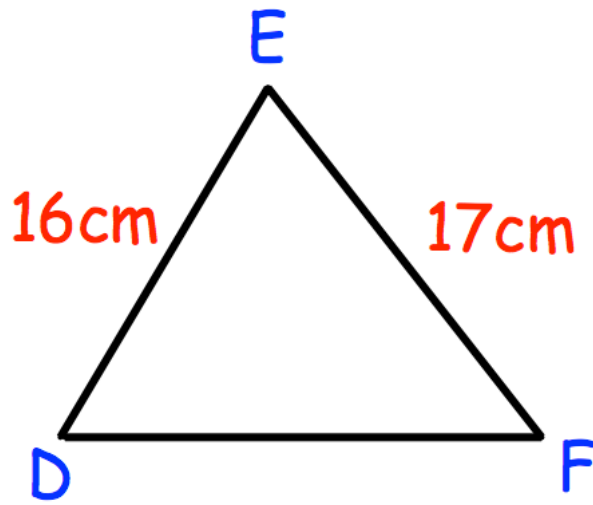
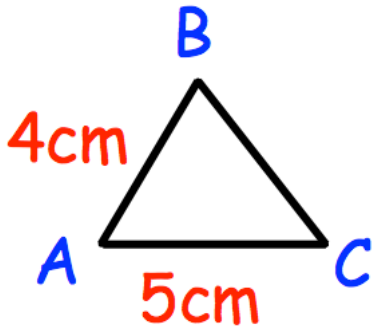
Work out the length of FG .

.....cm
(2)

2.



Not drawn
to scale



Triangles ABC and DEF are similar.

$$AB = 4\text{cm}$$

$$AC = 5\text{cm}$$

$$DE = 16\text{cm}$$

$$EF = 17\text{cm}.$$

(a) Work out the length of DF.

.....cm
(2)

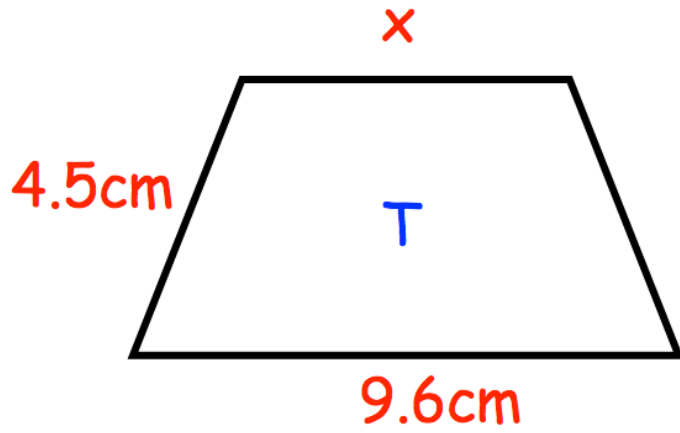
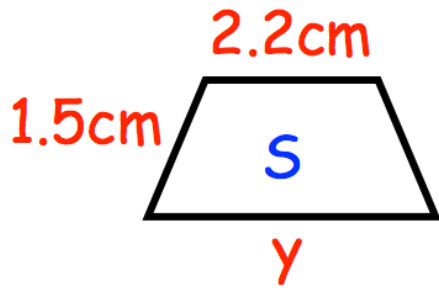
(b) Work out the length of BC.

.....cm
(2)

3. Trapezium S and trapezium T are similar.



Not drawn accurately



(a) Find the size of x.

.....cm
(2)

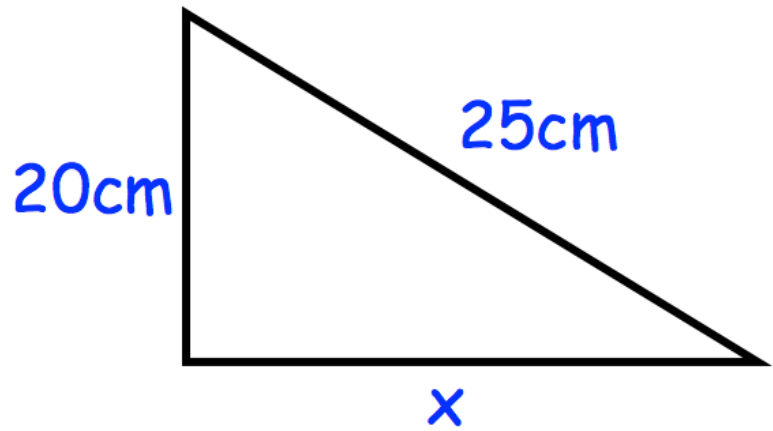
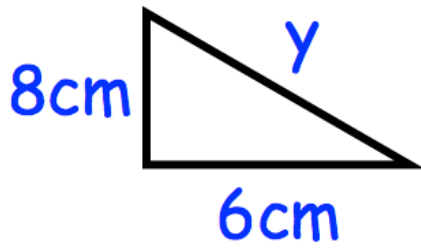
(b) Find the size of y.

.....cm
(2)

4. Shown below are two similar triangles.



Not drawn accurately



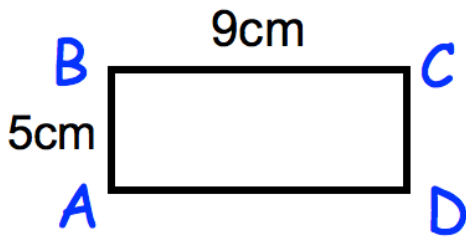
(a) Find the size of x .

.....cm
(2)

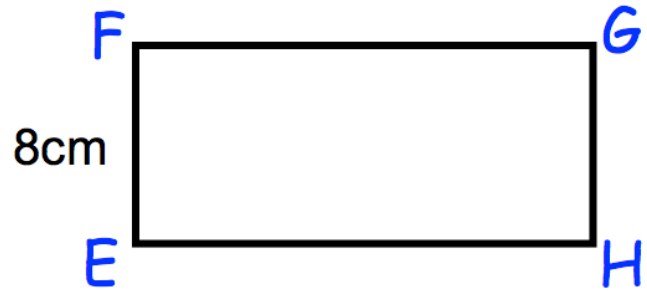
(b) Find the size of y .

.....cm
(2)

5.



Not drawn accurately



Rectangles $ABCD$ and $EFGH$ are similar.

$$AB = 5\text{cm}$$

$$BC = 9\text{cm}$$

$$EF = 8\text{cm}$$

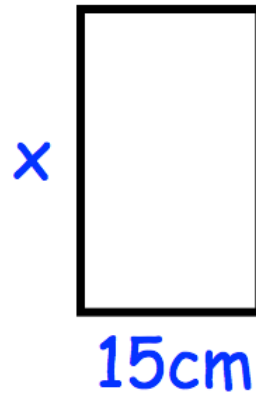
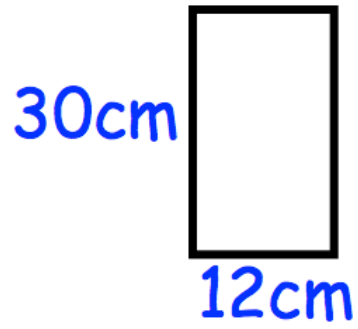
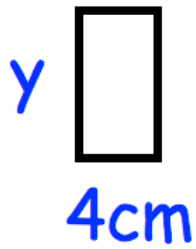
Work out the length of FG .

.....cm
(2)

6. The diagram shows three similar rectangles.



Not drawn accurately



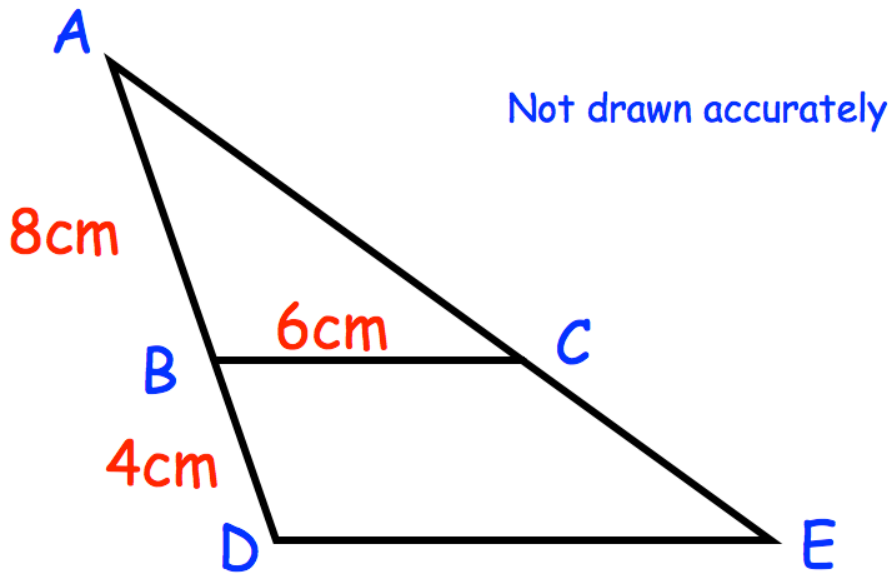
(a) Work out the value of x .

.....cm
(2)

(b) Work out the value of y .

.....cm
(2)

7.



Triangle ABC is similar to triangle ADE .

$$AB = 8\text{cm}$$

$$BC = 6\text{cm}$$

$$BD = 4\text{cm}$$

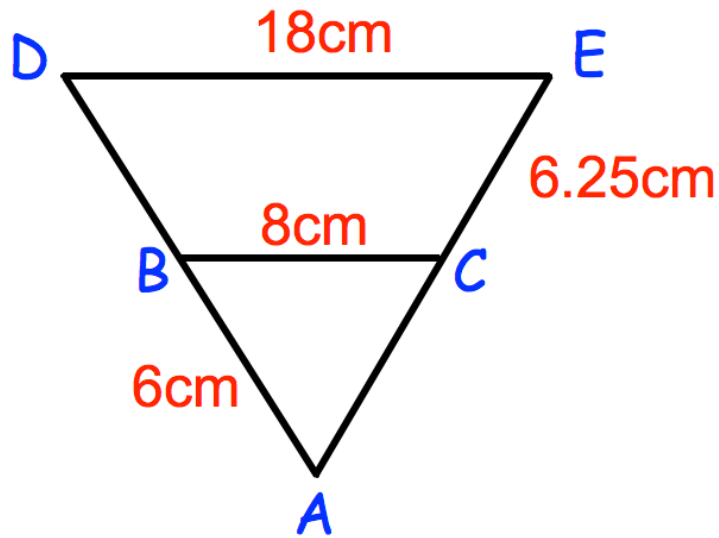
Work out the length of DE .

.....cm
(3)

8.



Not drawn accurately



Triangle ABC is similar to triangle ADE .

$AB = 6\text{cm}$

$BC = 8\text{cm}$

$CE = 6.25\text{cm}$

$DE = 18\text{cm}$

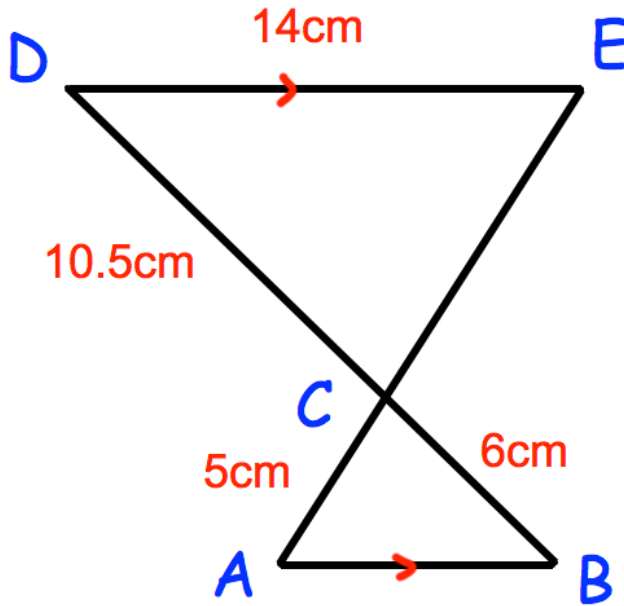
(a) Work out the length of DB .

.....cm
(3)

(b) Work out the length of AC .

.....cm
(3)

9.



ACE and BCD are straight lines.
DE is parallel to AB.

(a) Work out the size of CE.

.....cm
(3)

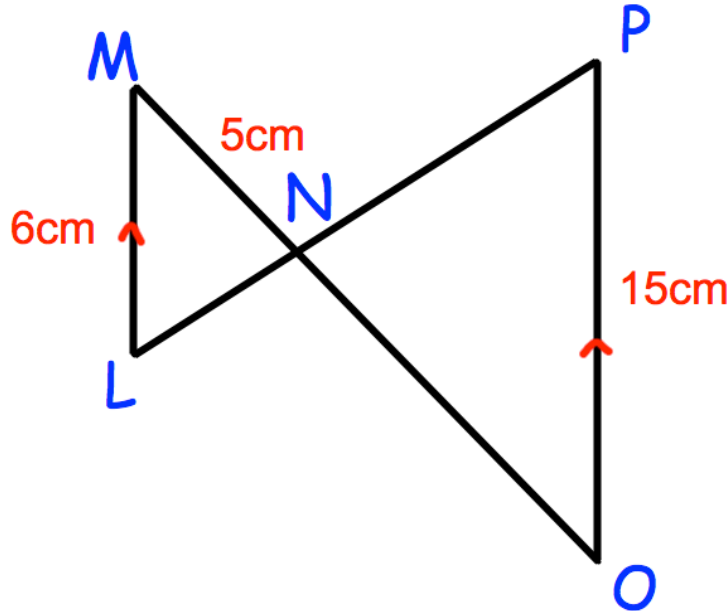
(b) Work out the size of AB.

.....cm
(3)

10. MNO and LNP are straight lines.
LM and OP are parallel.



Not drawn accurately



- (a) Explain why triangles LMN and NOP are similar
Give clear reasons for each statement you make.

.....

.....

.....

.....

.....

(3)

- (b) Work out the length of MO.

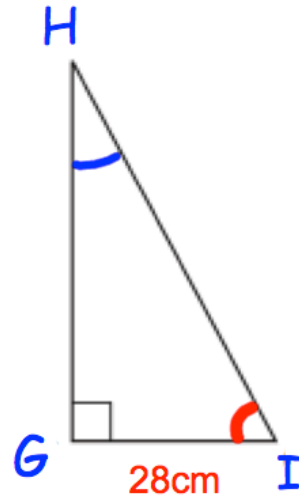
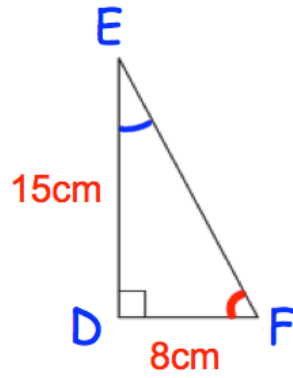
.....cm

(3)

11.



Not drawn to scale



DEF and GHI are similar right angled triangles.
DE = 15cm
DF = 8cm
GI = 28cm

Work out the length of HI