Area of Shapes

SCAN ME

REVISE THIS TOPIC

CHECK YOUR ANSWERS

SCAN ME

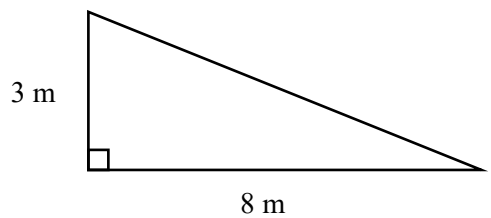
1

Work out the area of the rectangle giving the units of your answer.

.....

(Total for Question 1 is 2 marks)

2

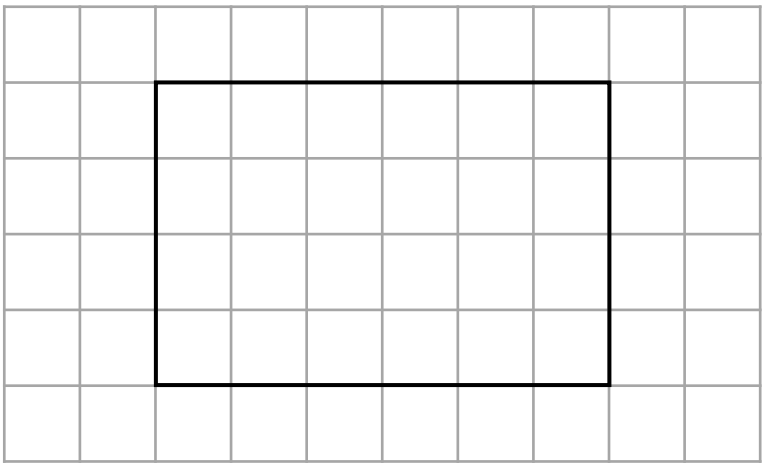


Work out the area of the triangle giving the units of your answer.

.....

(Total for Question 2 is 2 marks)

3 A rectangle is drawn on a centimetre grid.

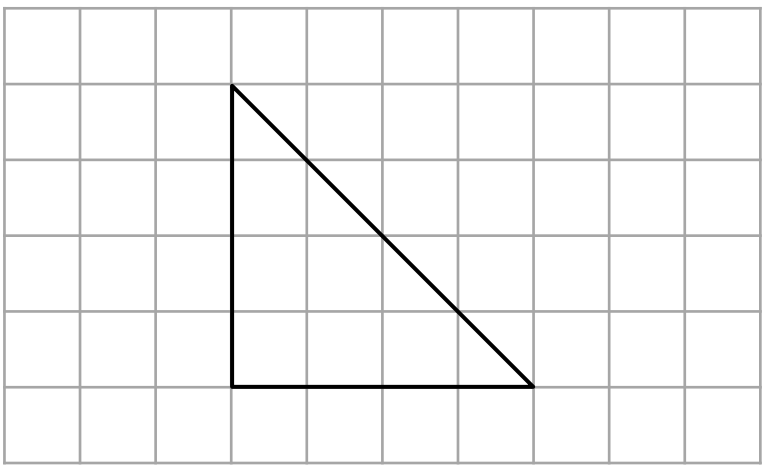


(a) Work out the area of the rectangle.

..... cm^2

(1)

A triangle is drawn on a centimetre grid.



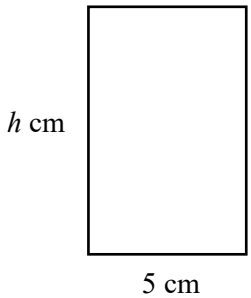
(b) Work out the area of the triangle.

..... cm^2

(1)

(Total for Question 3 is 2 marks)

4 The rectangle has a base of 5 cm and a height of h cm.

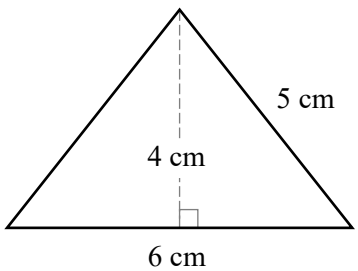


The area of the rectangle is 40 cm^2
Work out the value of h.

..... cm

(Total for Question 4 is 1 mark)

5

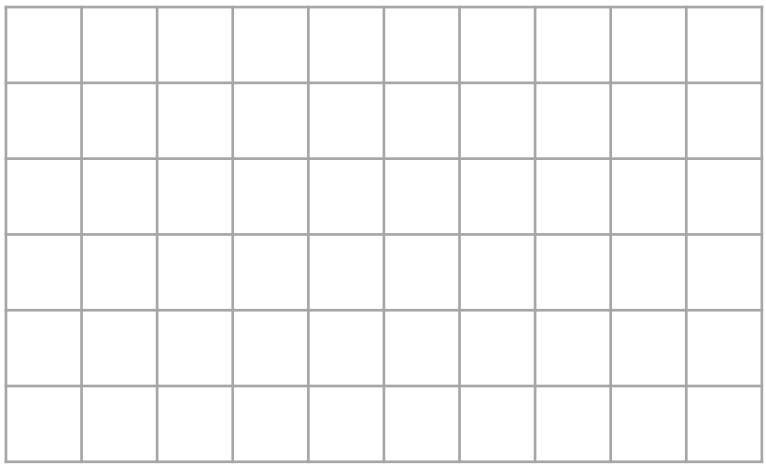


Work out the area of the triangle.

..... cm^2

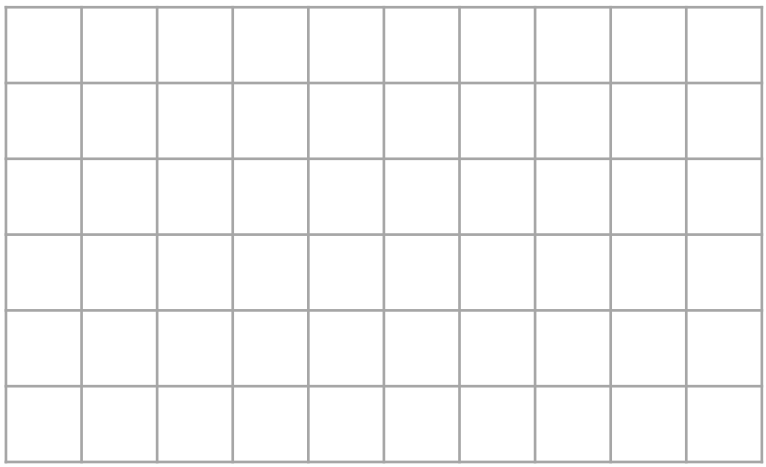
(Total for Question 5 is 2 marks)

6 (a) On the centimetre grid below, draw a rectangle with an area of 18 cm^2



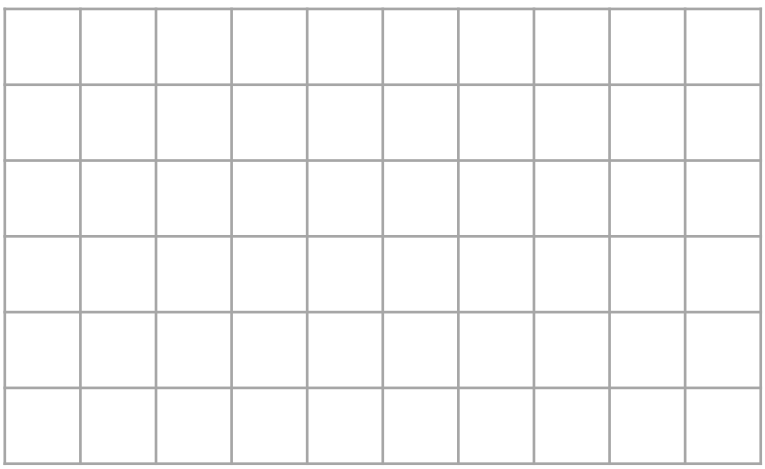
(1)

(b) On the centimetre grid below, draw a triangle with an area of 12 cm^2



(1)

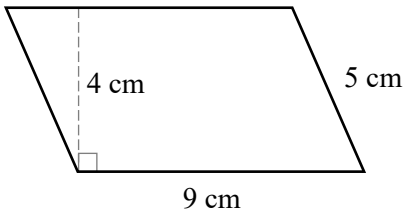
(c) On the centimetre grid below, draw a parallelogram with an area of 15 cm^2



(1)

(Total for Question 6 is 3 marks)

7

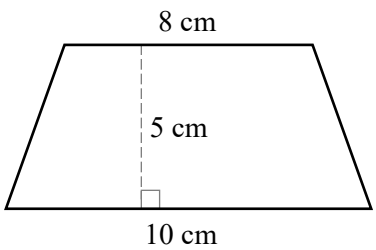


Work out the area of the parallelogram.

..... cm^2

(Total for Question 7 is 2 marks)

8



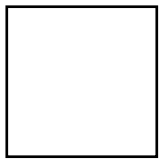
Work out the area of the trapezium.

..... cm^2

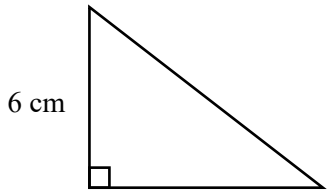
(Total for Question 8 is 2 marks)

9 Here is a square, triangle and parallelogram.

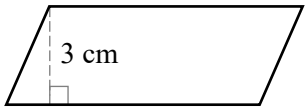
Square



Triangle



Parallelogram



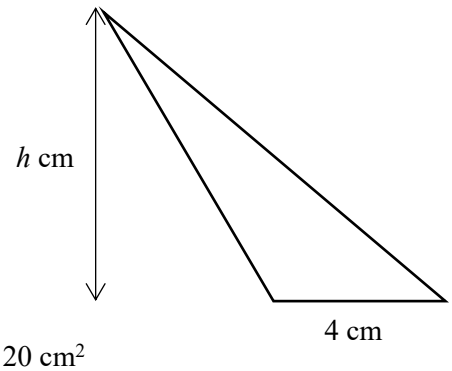
Put the shapes in order of area, starting with the smallest.

.....

(Total for Question 9 is 3 marks)

Solutions

10 A triangle has a base of 4 cm and a perpendicular height of h cm.

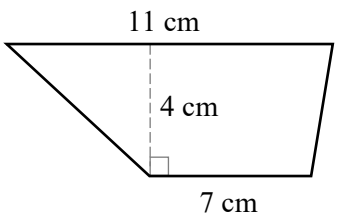


The area of the triangle is 20 cm^2
Work out the value of h.

$h =$ ..... cm

(Total for Question 10 is 2 marks)

11

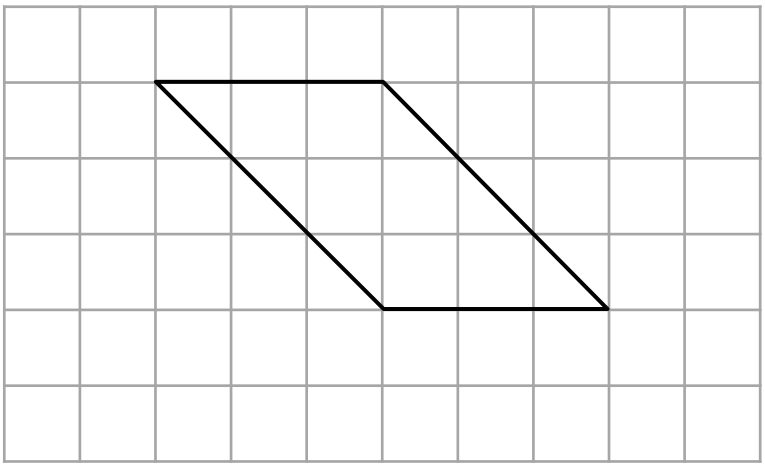


Work out the area of the trapezium.

..... cm^2

(Total for Question 11 is 2 marks)

12 A parallelogram is drawn on a centimetre grid.

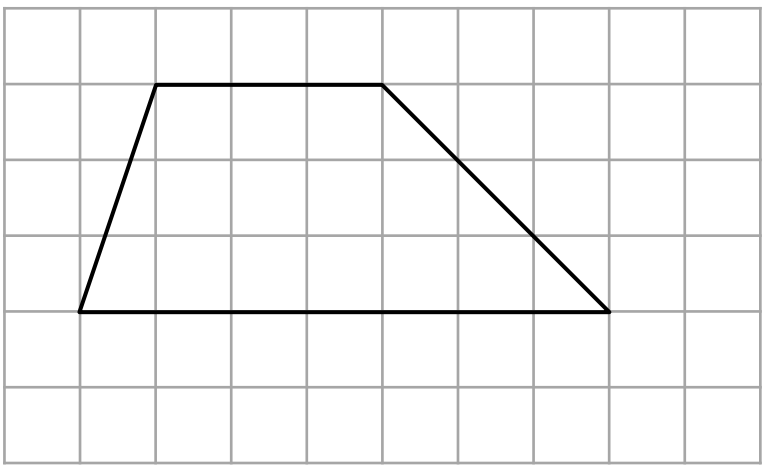


(a) Work out the area of the parallelogram.

..... cm^2

(1)

A trapezium is drawn on a centimetre grid.



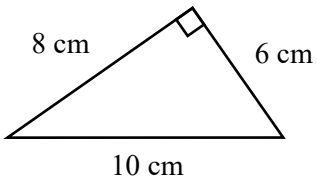
(b) Work out the area of the trapezium.

..... cm^2

(2)

(Total for Question 12 is 3 marks)

13

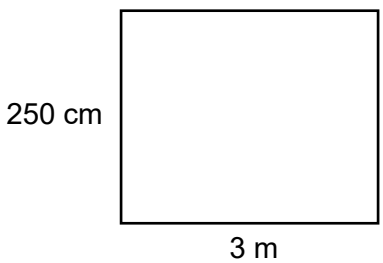


Work out the area of the triangle.

..... cm^2

(Total for Question 13 is 2 marks)

14



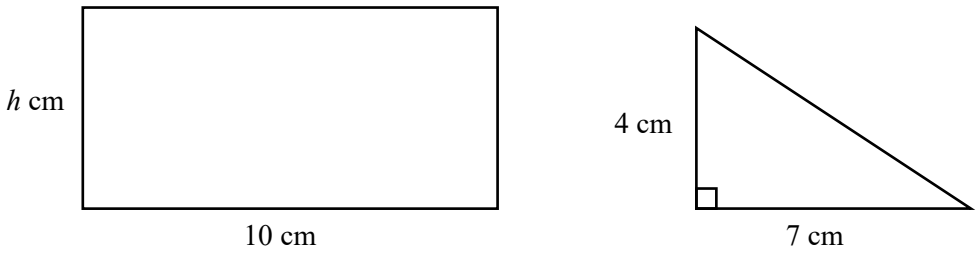
Work out the area of the rectangle.
Give your answer in square metres.

..... m^2

(Total for Question 14 is 2 marks)

Solutions

15 Here is a rectangle and a triangle.



The area of the rectangle is 3 times the area of the triangle.
Work out h, the height of the rectangle.

$h =$ ..... cm

(Total for Question 15 is 4 marks)

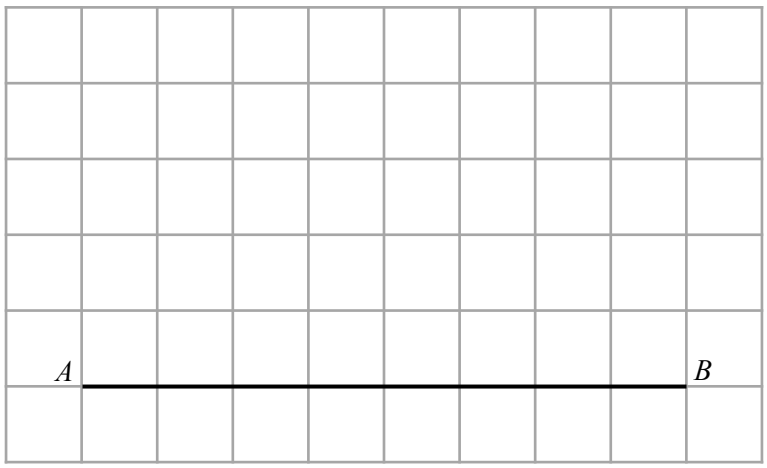
16 A square has side length 3.2 cm
Work out the area of the square, giving your answer in square centimetres.

..... cm^2

(Total for Question 16 is 3 marks)

Solutions

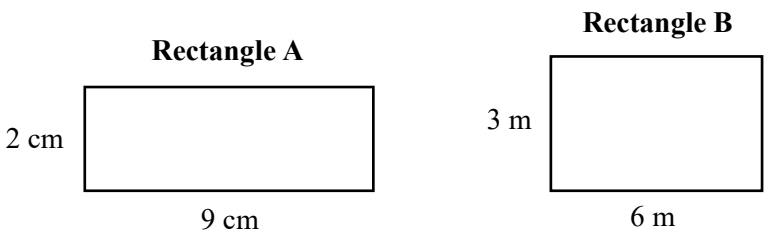
17 The line AB is one side of a trapezium $ABCD$ which has an area of 21cm^2
The line AB has been drawn on the centimetre grid below.



Complete a possible trapezium $ABCD$.

(Total for Question 17 is 2 marks)

18 Here are two rectangles.



Aaron says "Rectangle A and rectangle B have the same area"

Is Aaron correct?
Give a reason for your answer.

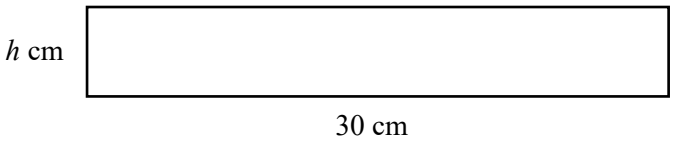
.....

.....

.....

(Total for Question 18 is 1 mark)

19 A rectangle has a base of 30 cm and a height of h cm.

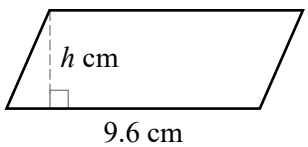


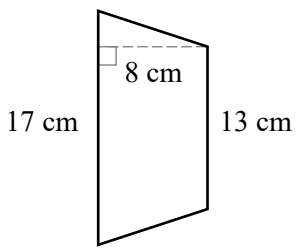
The area of the rectangle is 15 cm^2
Work out the value of h.

..... cm

(Total for Question 19 is 1 marks)

20 Here is a parallelogram and a trapezium



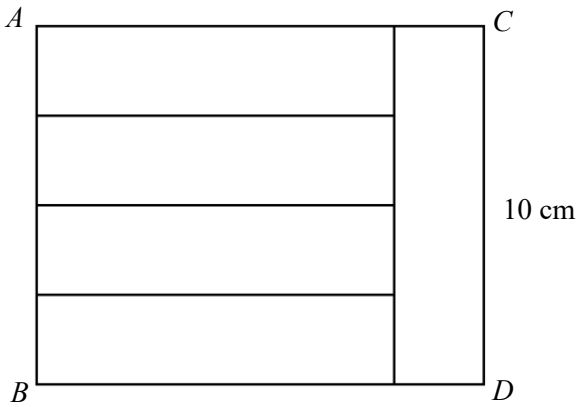


The area of the parallelogram one fifth of the area of the trapezium
Work out h, the perpendicular height of the parallelogram.

..... cm

(Total for Question 20 is 4 marks)

21 Five congruent rectangles are joined to make rectangle *ABCD*.

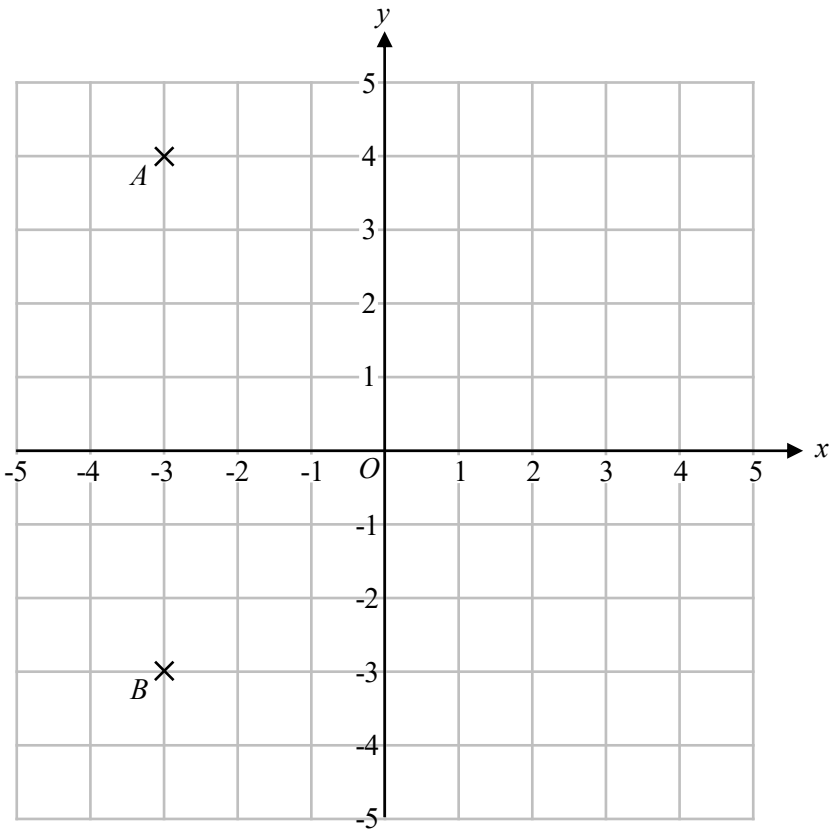


Work out the area of rectangle *ABCD*.

..... cm^2

(Total for Question 21 is 4 marks)

22 Points A and B are shown on the centimetre grid below.



$C = (1, 2)$

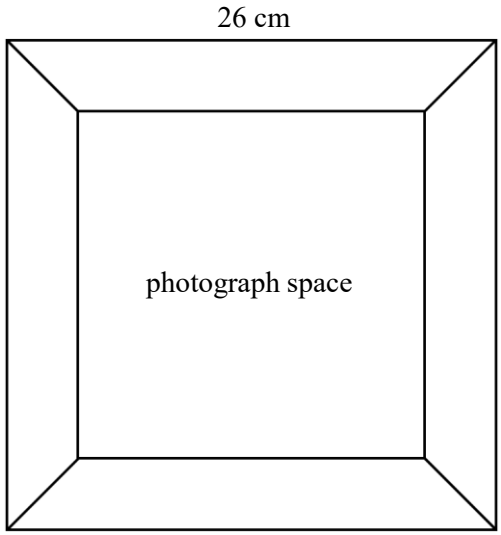
Work out the area of triangle ABC.

..... cm^2

(Total for Question 22 is 3 marks)

Solutions

23 A picture frame is made from four congruent trapeziums.



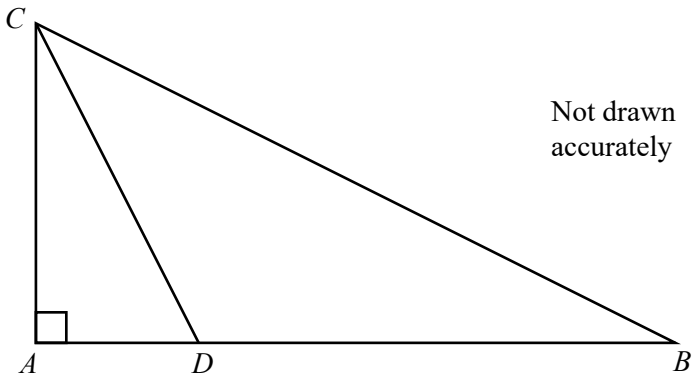
The width of the picture frame is 26 cm.
A square photograph will be placed in the photograph space.
The area of the photograph space is 400 cm^2

Work out the area of one of the trapeziums that forms the picture frame.

..... cm^2

(Total for Question 23 is 4 marks)

24 ABC is a triangle.



Not drawn accurately

ABD is a straight line.

$AB = 15$ cm
$AD : DB = 1 : 4$
$AD : AC = 1 : 3$

Work out the area of triangle BCD.

..... cm^2

(Total for Question 24 is 4 marks)