

SOLUTIONS

GCSE TOPIC BOOKLET COORDINATES

(2, 3)

across
2
to the
right

then

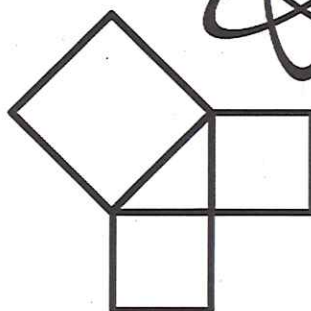
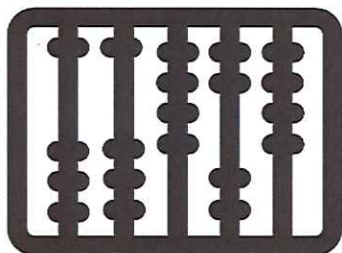
up
3

(-4, -3)

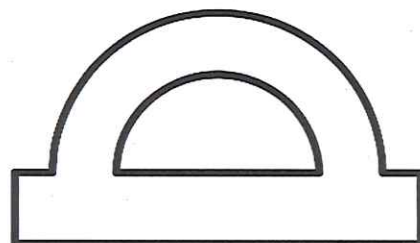
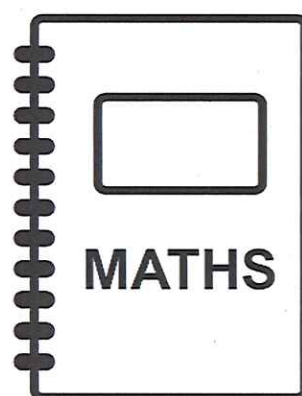
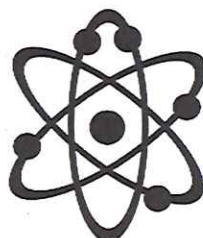
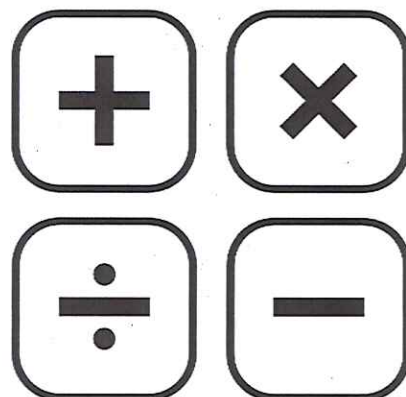
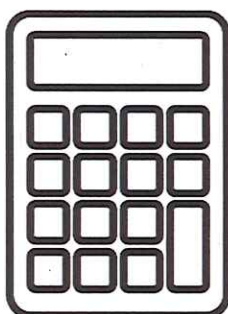
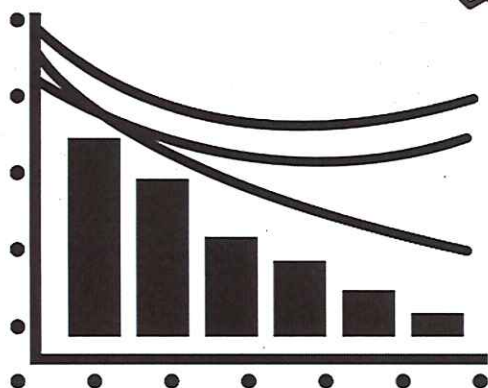
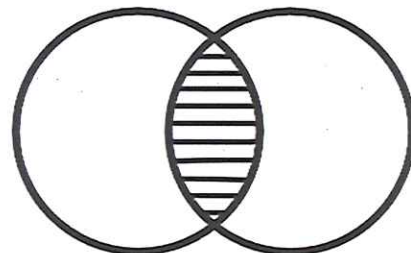
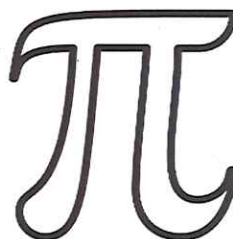
across
4
to the
left

then

down
3

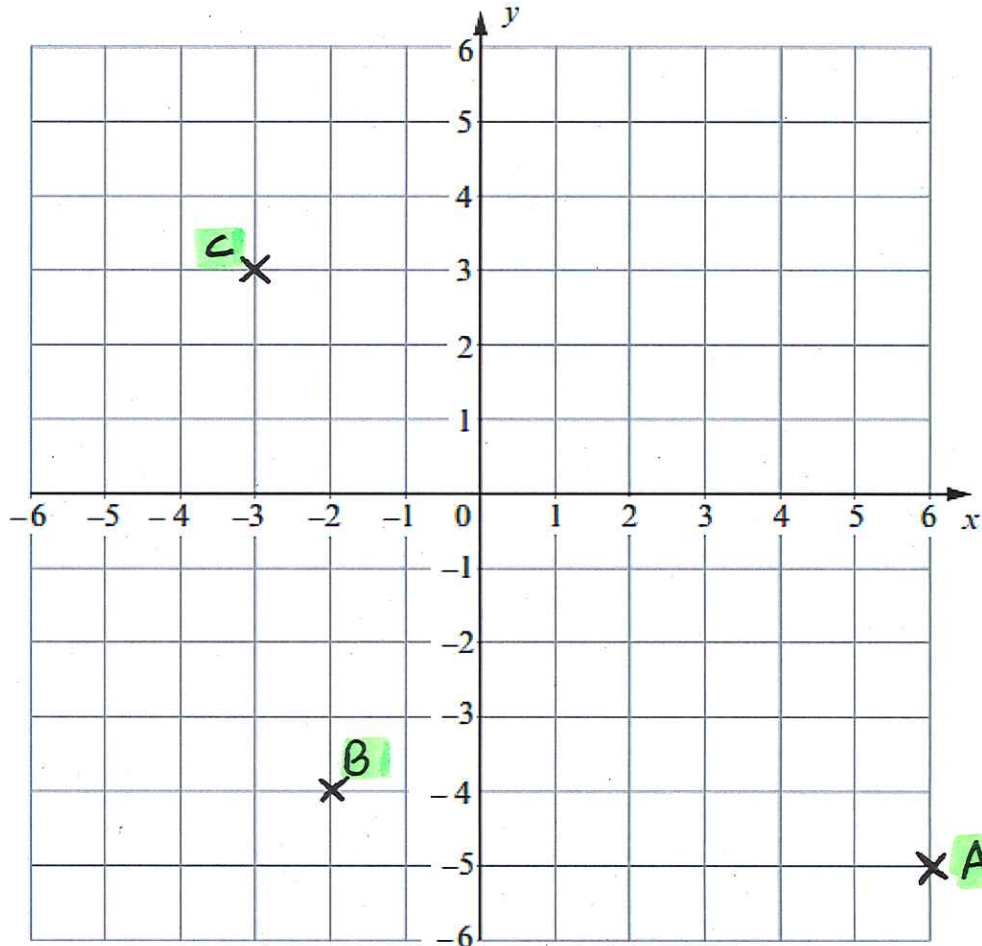


$$a^2 = b^2 + c^2$$



1.

On the squared paper below, plot the points $A(6, -5)$, $B(-2, -4)$ and $C(-3, 3)$.



[3]

2.

The x and y values of the coordinates of the points $(2, 6)$, $(3, 9)$, $(4, 12)$, (x, y) all follow the same rule.

Write down the rule connecting x and y .

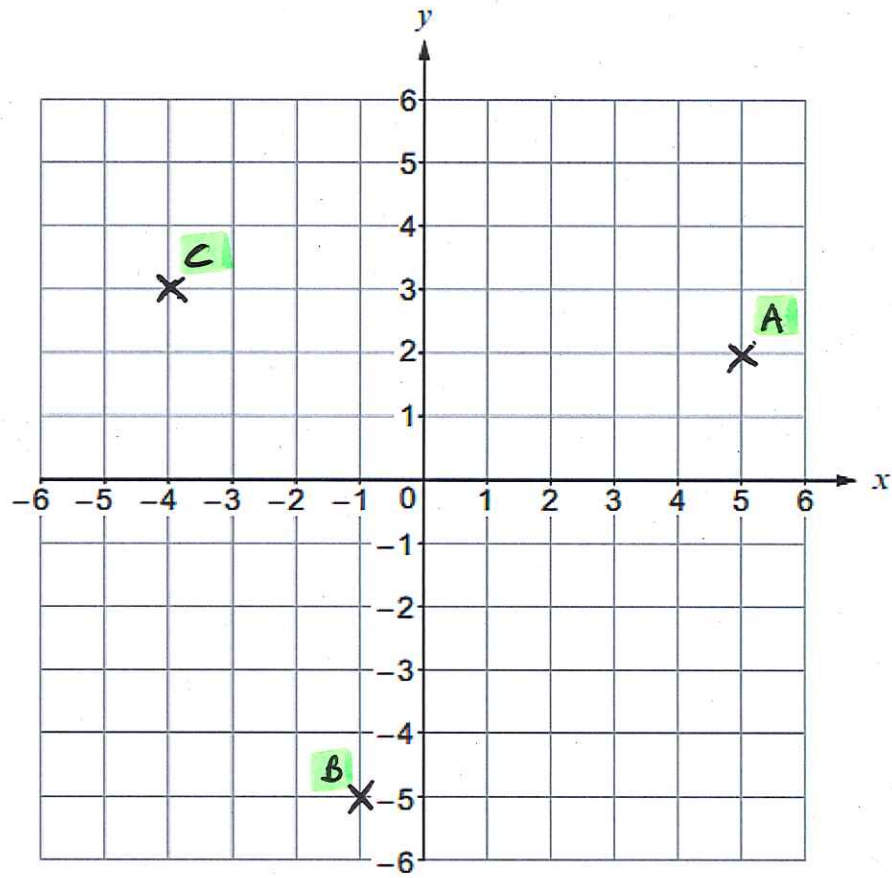
The y coordinate is three 'x' the x coordinate.
 or
Multiply the x by 3 to get the y .

(2)

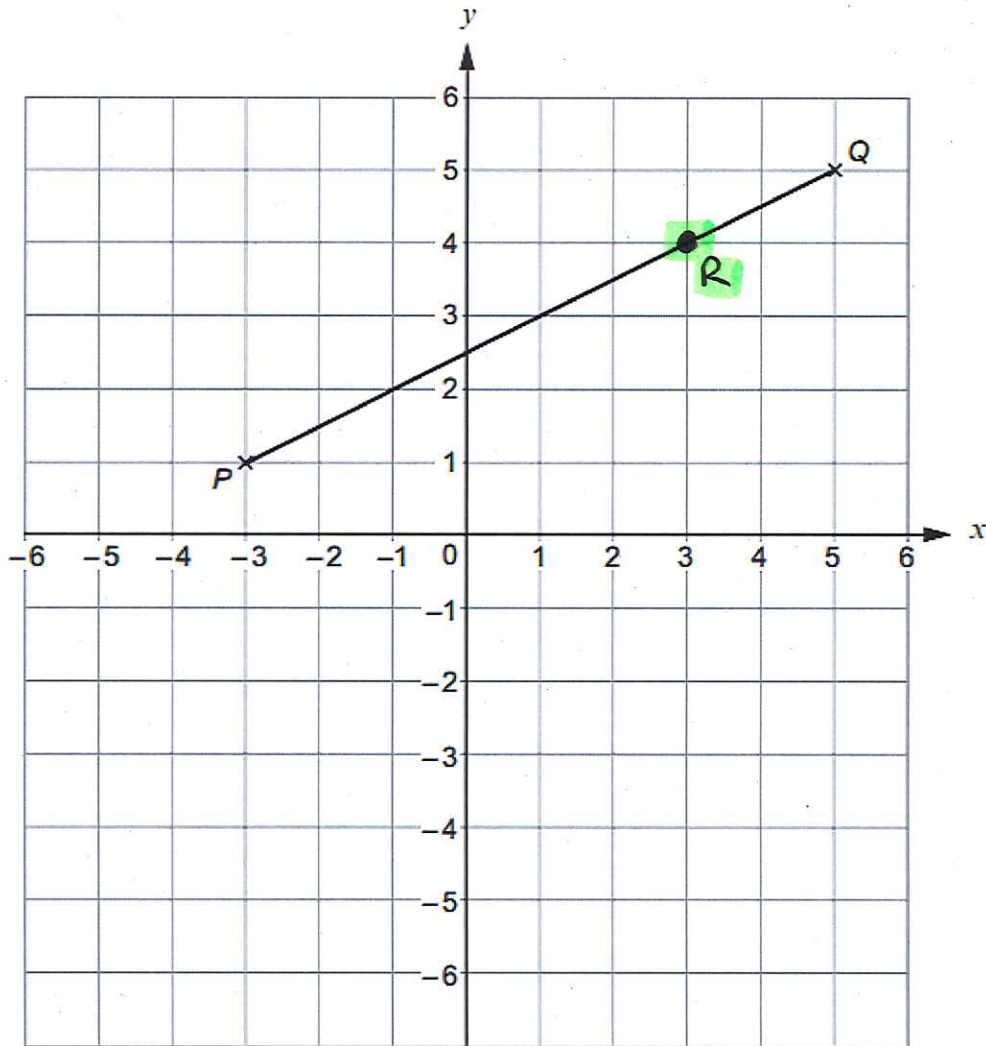
3.

On the squared paper below, plot the points $A(5, 2)$, $B(-1, -5)$ and $C(-4, 3)$.

[3]



4.



- (a) Write down the coordinates of the point P.

[1]

(-3, 1)

- (b) The point R lies on the line PQ.
The y-coordinate of R is 4.
What is the x-coordinate of the point R?

[1]

x-coordinate = 3

- (c) The coordinates of the point (1, 3) add up to 4.
Write down the coordinates of the point on PQ which add up to 1.

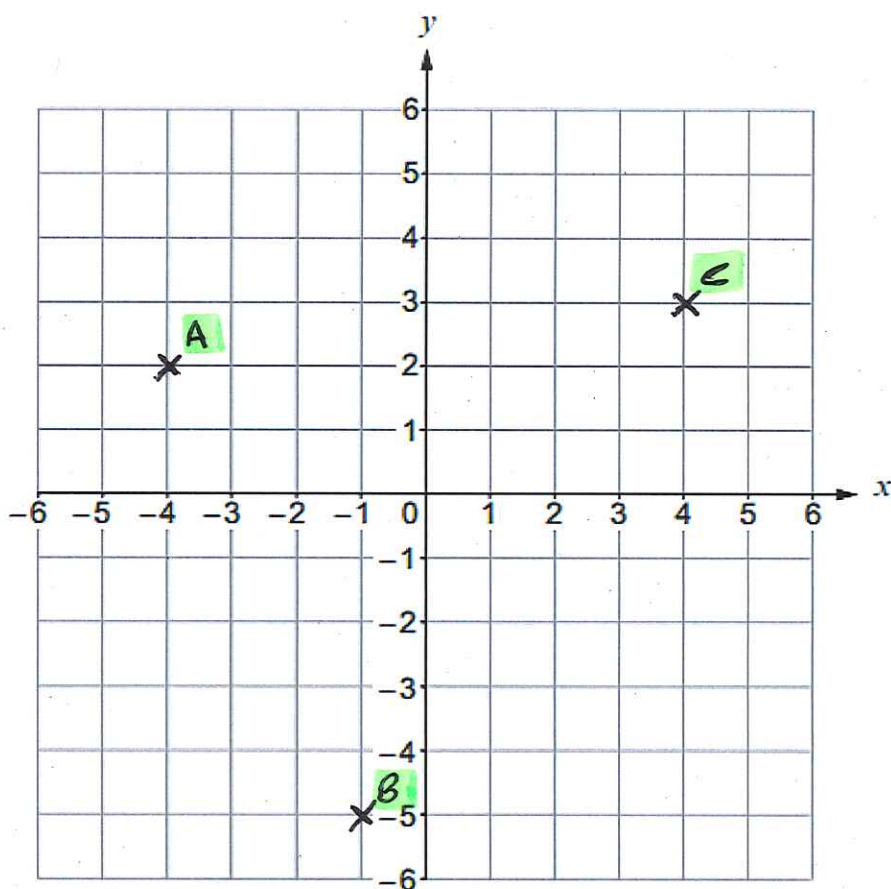
[2]

(-1, 2)

5.

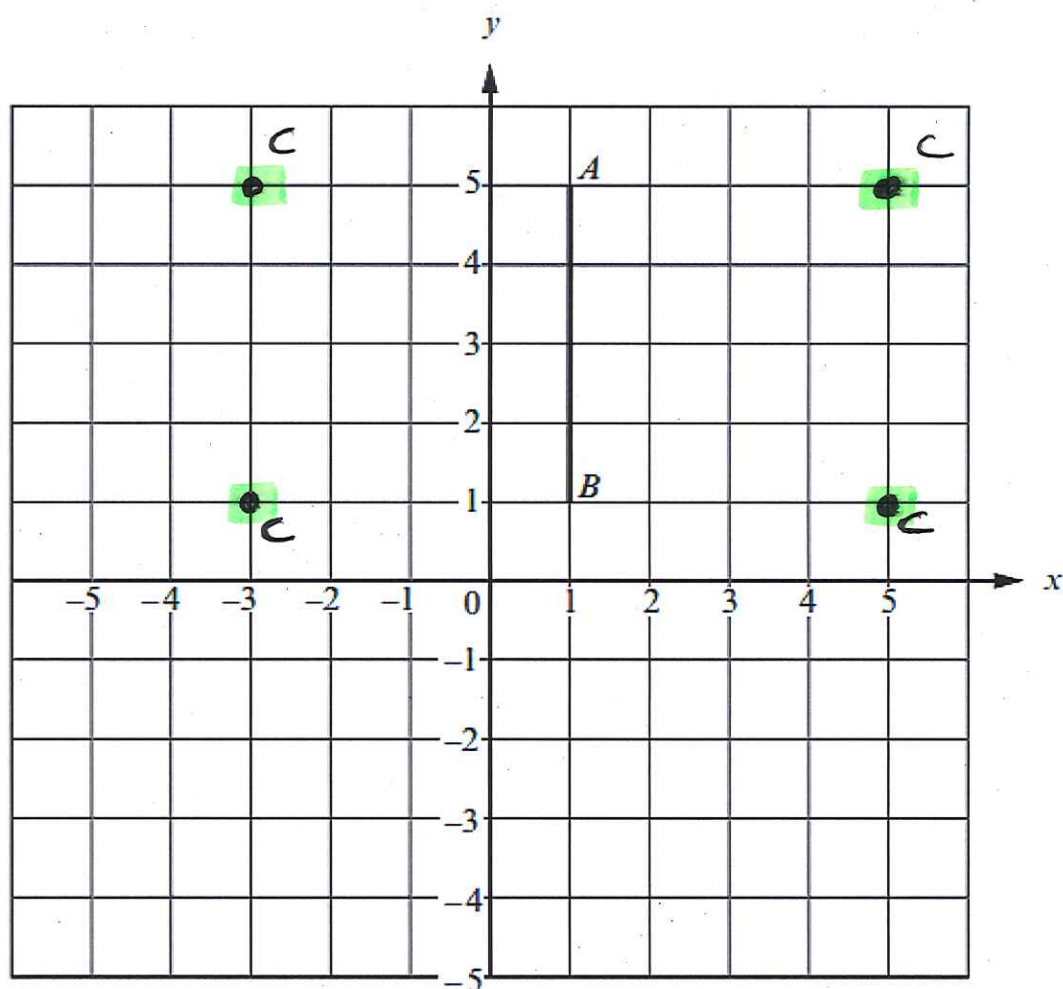
On the squared paper below, plot the points $A(-4, 2)$, $B(-1, -5)$ and $C(4, 3)$.

[3]



6.

AB is one of the two equal sides of a right-angled isosceles triangle ABC . Find all possible positions for the point C and write down their coordinates.



There are four possibilities

$(5, 5)$

$(-3, 1)$

$(5, 1)$

$(-3, 5)$

(4)

7.

The diagram shows 2 identical parallelograms and the coordinates of four vertices. Find the coordinates of the vertices marked A , B and C .

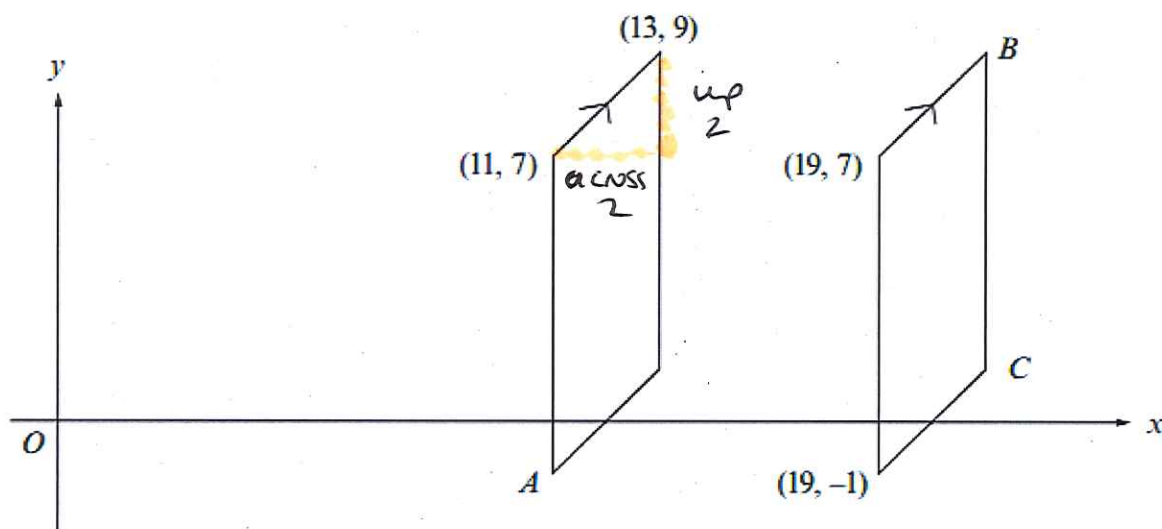


Diagram not drawn to scale

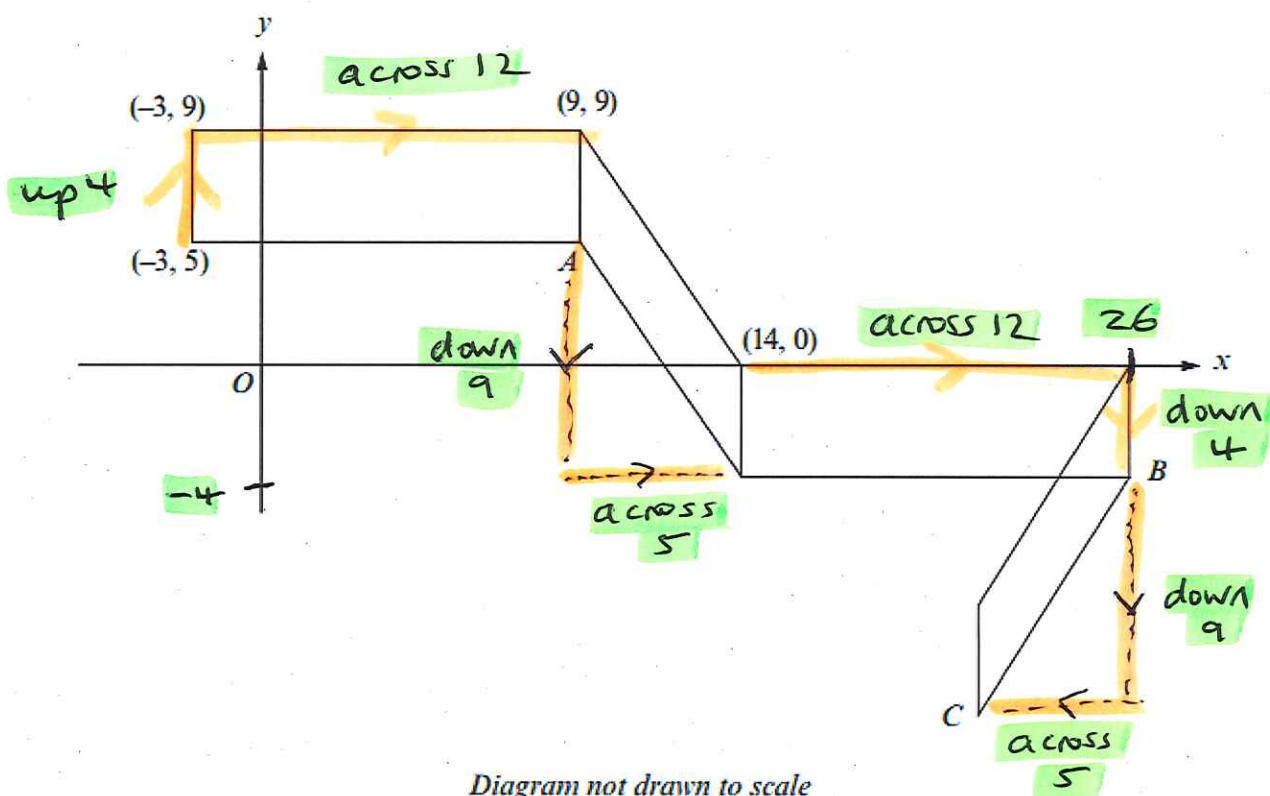
A (11, -1) B (21, 9) C (27, -1)

[6]

8.

The diagram shows 2 identical rectangles and 2 identical parallelograms. The coordinates of four vertices are shown on the diagram.

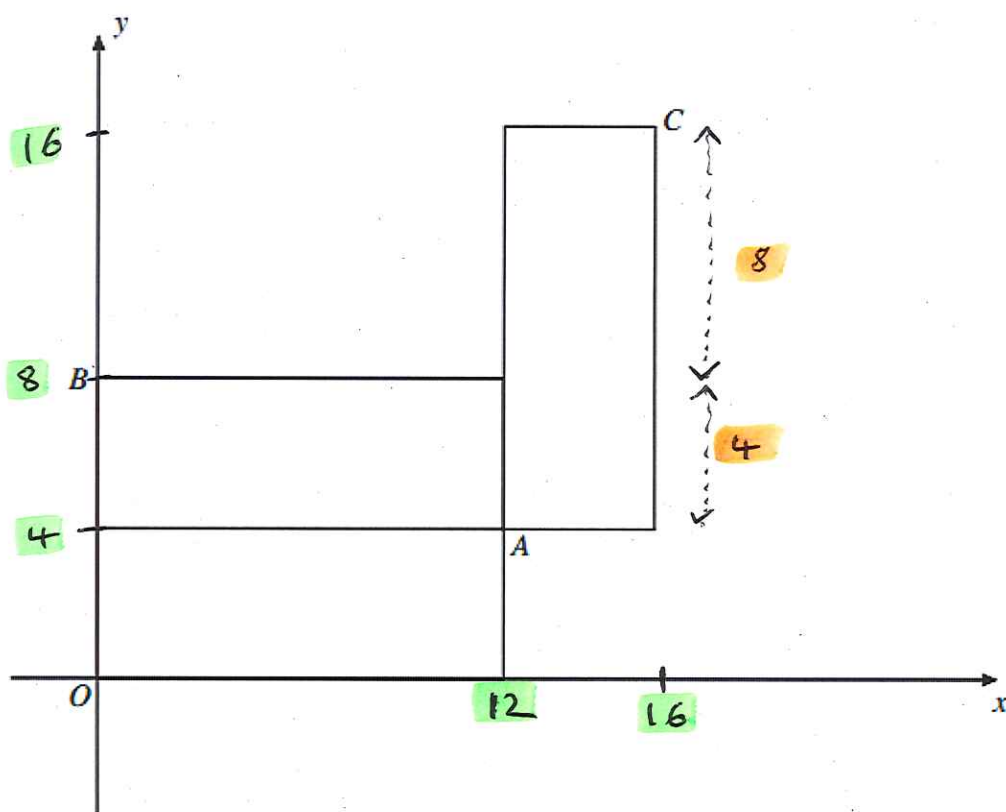
Find the coordinates of the vertices marked A , B and C .



$A(9, 5)$ $B(26, -4)$ $C(21, -13)$ [6]

9.

The diagram below shows 3 rectangles each of which is 12 units by 4 units.



Find the coordinates of the points A, B and C.

The coordinates of A are (12 , 4)

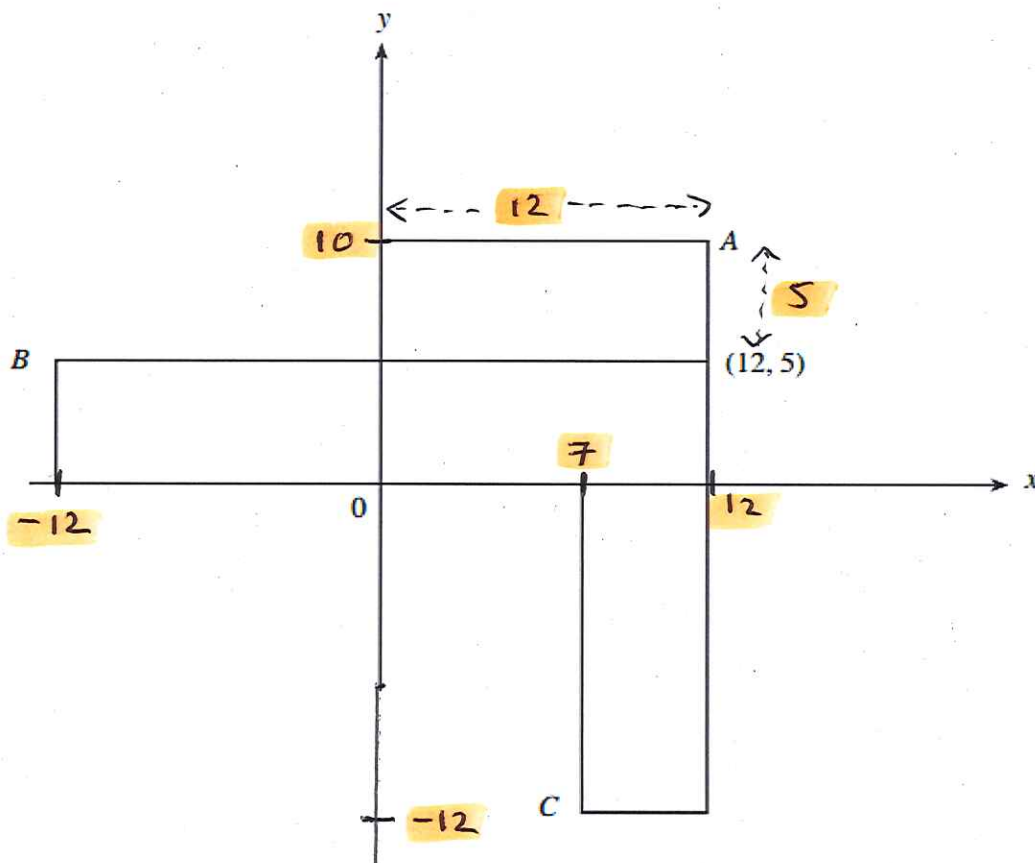
The coordinates of B are (0 , 8)

The coordinates of C are (16 , 16)

[6]

10.

The diagram below shows four identical rectangles.



Find the coordinates of the points A, B and C.

The coordinates of A are (12 , 10)

The coordinates of B are (-12 , 5)

The coordinates of C are (7 , -12)

[6]