## Missing Coordinates

Q1.
The diagram shows three identical shaded triangles on coordinate axes.


What are the coordinates of $\mathbf{A}$ and $\mathbf{B}$ ?



Q2.
The diagram shows two identical squares.


A is the point $(10,10)$
What are the coordinates of $\mathbf{B}$ and $\mathbf{C}$ ?


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Q3.
$A B C D$ is a rectangle drawn on coordinate axes.
The sides of the rectangle are parallel to the axes.


What are the coordinates of $\mathbf{D}$ and $\mathbf{E}$ ?


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Q4.
$A$ and $B$ are joined by a straight line on coordinate axes.


The dots on the line are equally spaced.
What are the coordinates of $\mathbf{C}$ ?


Q5.
Here is a line on coordinate axes.


Points $\mathbf{O}, \mathbf{P}, \mathbf{Q}$ and $\mathbf{R}$ are equally spaced.
The coordinates of $\mathbf{P}$ are $(25,12)$.
What are the coordinates of $\mathbf{R}$ ?


Q6.
Here are two triangles drawn on coordinate axes.


Triangle B is a reflection of triangle A in the $x$-axis.
Two of the new vertices of triangle $B$ are $(10,-10)$ and $(20,-30)$.
What are the coordinates of the third vertex of triangle B ?


Q7.
Alfie places three cubes on a coordinate grid.
The base of his shape is a rectangle.


Complete this sentence:
The four vertices of the rectangle are


Q8.
Here is a square on coordinate axes.

$\mathbf{C}$ is the centre of the square.
Find the coordinates of $\mathbf{P}$ and $\mathbf{Q}$.


1 mark
$Q$ is $(, \quad)$
1 mark

Q9.
This diagram shows two identical rectangles on coordinate axes.


Write the coordinates of point $\mathbf{A}$ and point $\mathbf{B}$.


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Q10.
Here are two identical shaded triangles on coordinate axes.


Write the coordinates of points A and B .


Q11.
In this diagram $\mathbf{R}$ is an equal distance from $\mathbf{P}$ and $\mathbf{Q}$.


What are the coordinates of $\mathbf{R}$ ?

$$
R=(\quad, \quad)
$$

M1.(a) $(19,25)$
! Coordinates
(b) $(-6,19)$
! Gives values for $A$ and $B$ transposed
Award 1m for part (b) only, ie:

- $A$ is $(-6,19)$ and $B$ is $(19,25)$

M2. (a) (0, 10)
Coordinates must be written in the correct order.
Accept unambiguous answers written on the diagram.
(b) $(10,20)$

If the answer for 15 a is $(10,0)$ AND the answer to $15 b$ is $(20,10)$, award ONE mark only, in the 15b box.

M3. (a) (-10, -4)
Coordinates must be written in the correct order.
(b) $(0,8)$

Accept unambiguous answers written on the diagram.
Award ONE mark if the answer to (a) is $(0,8)$
AND the answer to $b$ is $(-10,-4)$.

M4. (a) 13 for the $x$ coordinate
Accept unambiguous answers written on the diagram.
(b) 15 for the $y$ coordinate

Accept unambiguous answers written on the diagram.
If the answer to (a) is 15 AND the answer to (b) is 13, then award ONE mark for (b).

M5. ( 75,36 )
Accept unambiguous answers written on the diagram.

M6.
$(-10,-40)$

M7. $(2,4)$

M8.(a) $\quad \mathrm{P}$ is $(-12,-30)$
! Coordinates
Accept unambiguous answers written on the diagram
(b) Q is $(38,-30)$
! Answers for $P$ and $Q$ transposed
Award 1 mark for $Q$ only, ie:

- $P$ is $(38,-30)$
$Q$ is $(-12,-30)$
! Answer for $Q$ correctly follows through from an incorrect answer for $P$
Award 1m for $Q$ for follow-through from $P$ as ('their $x$ ' +50 , 'their $y$ ')

M9.(a) $\quad \mathrm{A}$ is $(12,6)$
(b) $B$ is $(19,3)$

Coordinates must be given in the correct order. If the answer to (a) is $(19,3)$ AND the answer to (b) is $(12,6)$ then award ONE mark for (b)

Accept unambiguous answers written on the diagram.

M10.(a) ( 12,0 )
Accept unambiguous answers written on the diagram.
(b) $(9,-8)$

If the answer to (a) is $(9,-8)$ AND the answer to (b) is $(12,0)$ then award ONE mark for (b).

