FOUNDATION & HIGHER

SAME AT BOTH TIERS

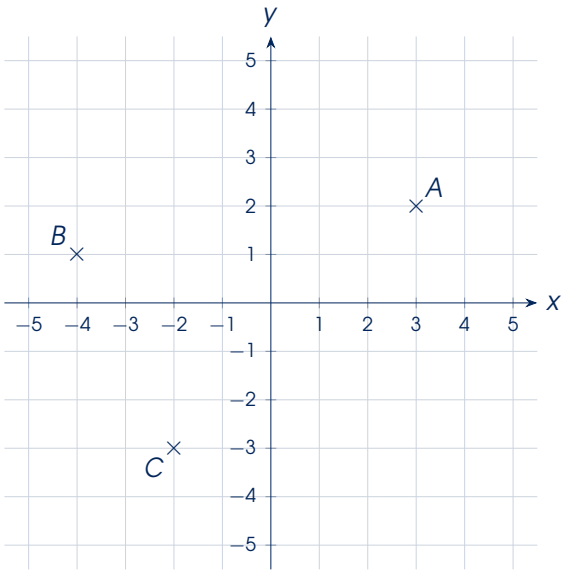
Name ..... Class .....

A8: Coordinates

Work with coordinates in all four quadrants

20 marks · 25 minutes · Non-calculator

1) Points A, B and C are plotted on the grid.



(a) State the coordinates of A, B and C.

A (.....) B (.....) C (.....)

(3)

(b) Plot the point $E(-3, -2)$ on the grid and label it E.

(1)

[Question 1: 4 marks]

2) P is the point $(-3, 5)$ and Q is the point $(7, -1)$. Find the midpoint of PQ.

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[Question 2: 2 marks]

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3) $M(4, -1)$ is the midpoint of AB. A is the point $(1, 4)$. Find the coordinates of B.

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[Question 3: 2 marks]

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4) $ABCD$ is a square. A is $(1, 1)$, B is $(5, 1)$ and C is $(5, 5)$. State the coordinates of D.

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[Question 4: 1 marks]

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5) Find the length of the line joining $(2, -1)$ and $(2, 6)$.

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[Question 5: 1 marks]

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6) Find the midpoint of the line joining $(-4, -2)$ and $(6, 8)$.

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[Question 6: 2 marks]

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7) Write down the coordinates of the point on the y-axis where $y = -5$

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[Question 7: 1 marks]

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8) $A(2, 3)$, $B(2, -1)$ and $C(-3, -1)$ are three corners of rectangle $ABCD$. Write down the coordinates of D.

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[Question 8: 1 marks]

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9) The point $P(-2, 4)$ is reflected. Write down where it ends up when it is reflected in

(a) the x-axis

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(1)

(b) the y-axis

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(1)

[Question 9: 2 marks]

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10) Find the length of the line joining $(1, 2)$ and $(7, 10)$.

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[Question 10: 2 marks]

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11) $(0, 0)$, $(4, 0)$ and $(5, 3)$ are three corners of a parallelogram. The side from $(0, 0)$ to $(4, 0)$ is parallel to the side from the fourth corner to $(5, 3)$. Find the fourth corner.

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[Question 11: 2 marks]

End of paper – 20 marks in total

Answers and brief mark scheme

Q	Answer	Method / notes
1	(a) $A(3,2)$, $B(-4,1)$, $C(-2,-3)$ (b) plotted	(a) B1 each. (b) B1.
2	$(2,2)$	$\frac{-3+7}{2}$ or $\frac{5+(-1)}{2}$ (M1); A1.
3	$(7,-6)$	Step from A to M is $(+3,-5)$ (M1); A1.
4	$(1,5)$	B1.
5	7	B1.
6	$(1,3)$	One coordinate correct (M1); A1.
7	$(0,-5)$	B1.
8	$(-3,3)$	B1.
9	(a) $(-2,-4)$ (b) $(2,4)$	B1 each.
10	10	$\sqrt{6^2+8^2}$ (M1); A1.
11	$(1,3)$	Move 4 left from $(5,3)$ (M1); A1.