MASTER MATHS GCSE

GCSE Mathematics 9-1

Coordinates

(Non-Calculator)

Mark Scheme

Total available marks: 43

Q	Answer	Working	Mark
1(a)	(2, 5)	Go across 2, then up 5	1
1(b)	(5, 3)	Go across 5, then up 3	1
1(c)	(1, 1)	Go across 1, then up 1	1
2	(5, 6)	The x-coordinate goes up by 1 each time and so does the y-coordinate	1
3(a)	P plotted at (4, 2)	Across 4, up 2	1
3(b)	Q plotted at (1, 6)	Across 1, up 6	1
3(c)	R plotted at (5, 0) on the x-axis	Across 5, up 0	1
4	(−6, 0)	Points on the x-axis have a y-coordinate of 0	1
5	(−4, 7)	Moving up adds to the y-coordinate: $2 + 5 = 7$ The x-coordinate stays the same	1
6(a)	(3, 4)	Across 3 right, then up 4	1
6(b)	(−4, 2)	Across 4 left, then up 2	1
6(c)	(−2, −3)	Across 2 left, then down 3	1
6(d)	(4, −1)	Across 4 right, then down 1	1
7(a)	E plotted at (−3, 4)	3 left, 4 up	1
7(b)	F plotted at (2, −5)	2 right, 5 down	1
7(c)	G plotted at (−4, −2)	4 left, 2 down	1
7(d)	H plotted at (0, −3) on the y-axis	0 across, 3 down	1
8	(0, 0)	The origin is where the x-axis and y-axis cross	1
9(a)	(−3, 0)	3 left, 0 up, J is on the x-axis	1
9(b)	(0, 2)	0 across, 2 up, K is on the y-axis	1
9(c)	(0, −4)	0 across, 4 down, L is on the y-axis	1
10(a)	3	The x-coordinate is the first number	1

Q	Answer	Working	Mark
10(b)	5	The y-coordinate is the second number	1
11	No, Neil has plotted (−2, 3). He went across −2 and up 3 instead of across 3 and down 2	The x-coordinate (3) comes first, so go 3 right; then the y-coordinate (−2), so go 2 down Neil swapped them round (1 mark for No, 1 mark for the reason)	2
12	(3, −1) and (5, −1)	The y-coordinate is the second number: both have −1	1
13	No, the x-coordinate tells you how far right. 2 is less than 5, so (5, 1) is further right	Compare the x-coordinates: $2 < 5$	1
14	No, M is at (1, 4). You go across first, then up	M is 1 across and 4 up, so M is (1, 4) Maya wrote the y-coordinate first (1 mark for No, 1 mark for the reason)	2
15(a)	Points plotted at (1, 2), (5, 2) and (3, 5) and joined	1 mark for all three points plotted correctly	1
15(b)	Triangle *Also accept isosceles triangle*	The shape has 3 straight sides	1
16(a)	D plotted at (5, 1)	D must be below C and level with A	1
16(b)	(5, 1)	Same x-coordinate as C (5), same y-coordinate as A (1)	1
17	*Any point with a y-coordinate of 0* *e.g.* (4, 0)	Every point on the x-axis has a y-coordinate of 0	1
18(a)	S plotted at (2, −1)	S must be below R and level with P	1
18(b)	(2, −1)	Same x-coordinate as R (2), same y-coordinate as P (−1)	1
19	(0, −2)	Points on the y-axis have an x-coordinate of 0	1
20	(4, 4)	Moving right adds to the x-coordinate: $1 + 3 = 4$ The y-coordinate stays the same	1
21(a)	B	3 left, 2 down	1

Q	Answer	Working	Mark
21(b)	C	3 right, 2 up (A is (2, 3), not (3, 2))	1
21(c)	D	2 left, 3 up	1
22	$(-2, 1)$	Left 4: $2 - 4 = -2$ Down 2: $3 - 2 = 1$ (1 mark for each coordinate)	2

Total available marks for this paper	**43**