Coordinates & Graphs: Medium Practice Paper 1 Answers

Q#	Answer	Explanation
1	D	Point C is 4 squares to the left of the origin, so x = −4, and 2 squares below the x-axis, so y = −2. It is (−4, −2).
2	E	A point on the y-axis has x = 0, whether it is above or below the origin. Point E is (0, −3).
3	B	Such a point is to the left of the y-axis but above the x-axis, which is the top left region of the grid. Point B is (−2, 4).
4	C	A reflection in the x-axis leaves the x-coordinate alone and changes the sign of the y-coordinate. So (−4, 2) becomes (−4, −2).
5	E	A reflection in the y-axis changes the sign of the x-coordinate and leaves the y-coordinate alone. So (3, −5) becomes (−3, −5).
6	A	Corner F is at (4, 3). Reflecting in the y-axis keeps the height and moves the point the same distance to the other side, giving (−4, 3).
7	A	Going 6 left from 2 crosses the y-axis and lands at x = −4. Going 5 down from 4 crosses the x-axis and lands at y = −1. The point ends at (−4, −1).
8	A	The x-coordinate changes from −3 to 1, which is 4 to the right. The y-coordinate changes from 2 to −1, which is 3 down.
9	D	Both points are 2 squares up, so the line joining them is horizontal. Count from −3 to 0, which is 3 squares, then 0 to 5, which is 5 more: 3 + 5 = 8 squares.
10	B	The midpoint sits halfway across and halfway up. Halfway between −3 and 5 is 1, and halfway between −1 and 3 is 1, so the midpoint is (1, 1).
11	A	The fourth corner shares its x-coordinate with (−4, −1) and its y-coordinate with (2, 3), so it is (−4, 3).

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12	C	The rectangle is 6 squares across, since −4 to 2 is 6, and 4 squares up, since −1 to 3 is 4. The perimeter is 6 + 4 + 6 + 4 = 20 squares.
13	C	To the right of the y-axis means a positive x-coordinate, and below the x-axis means a negative y-coordinate. Only (6, −3) has both.
14	D	The first reflection changes the sign of the y-coordinate, giving (2, −5). The second changes the sign of the x-coordinate, giving (−2, −5).
15	A	The rectangle stretches equally either side of both axes, from −3 to 3 across and from −2 to 2 up, so its centre is exactly at the origin, (0, 0).

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