Coordinates & Graphs: Medium Practice Paper 5 Answers

Q#	Answer	Explanation
1	C	The bottom left corner moves from (−5, 1) to (0, −3). Across, −5 becomes 0, which is 5 to the right, and up, 1 becomes −3, which is 4 down.
2	E	Reflecting in the y-axis swaps left for right, so the x-coordinate changes sign, while the height stays the same. So (5, −2) becomes (−5, −2).
3	A	The midpoint is halfway along in each direction. Halfway between −5 and 3 is −1, and halfway between 2 and 8 is 5, so the midpoint is (−1, 5).
4	A	Going from A to M you move 3 right and 3 up. B is the same step again beyond M, so it is 3 right of 4 and 3 up from 5, which is (7, 8).
5	C	G is at (−4, 1), which is 5 squares to the left of the mirror line, since 1 − (−4) = 5. Its image is 5 squares to the right of the line, at 1 + 5 = 6 across, and stays 1 up.
6	B	Going 3 left from −2 gives −5, and going 6 up from −4 crosses the x-axis to reach 2. The counter finishes at (−5, 2).
7	C	Both points are 4 squares to the left, so the line joining them is vertical. Its length is 7 − 1 = 6 squares.
8	E	The rectangle is 8 squares across, since −3 to 5 is 8, and 5 squares up, since −2 to 3 is 5. The area is 8 × 5 = 40 squares.
9	D	Moving 5 squares left takes away 5 from the x-coordinate. Starting at 2 and going 5 left passes the y-axis and lands on −3, so a = −3.
10	B	The point (0, 6) is 6 squares from the origin, straight up the y-axis. The point (−6, 0) is 6 squares from the origin along the x-axis, so it is exactly as far away.
11	B	From A to B the move is 2 right and 3 up. Taking the same step again from B gives 3 + 2 = 5 across and 5 + 3 = 8 up, so C is (5, 8).

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12	A	The given side runs from 1 up to 5, so it is 4 squares long. The other corners are 4 squares to the right of the ones given, at (6, 1) and (6, 5).
13	D	A positive x-coordinate puts the point to the right of the y-axis, and a negative y-coordinate puts it below the x-axis. Only (4, −7) has a positive first number and a negative second number.
14	C	A reflection produces a mirror image of exactly the same size and shape. What changes is the position, since every point moves to the opposite side of the x-axis.
15	A	Both places are 4 squares up, so the chest is too. The gap from −3 to 5 is 8 squares, and half of that is 4 squares, so counting 4 to the right from −3 lands on 1. The chest is at (1, 4).

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