

Coordinates & Graphs: Medium Practice Paper 2 Answers

Q#	Answer	Explanation
1	B	PQ runs 4 squares to the right, from 1 to 5. The side from R to the fourth corner must match it, so from (3, 4) go 4 right to (7, 4).
2	B	The base runs from 1 to 7, so it is 6 squares, and the height runs from 1 to 5, so it is 4 squares. The area of a triangle is half of base times height: $6 \times 4 = 24$, and half of that is 12.
3	E	The three corners given are each 3 squares from the centre (4, 4): one below, one right and one above. The missing corner is 3 squares to the left of the centre, at (1, 4).
4	D	The rectangle is $8 - 2 = 6$ squares across and $5 - 1 = 4$ squares up, so the area is $6 \times 4 = 24$ squares.
5	C	A is (1, 1) and C is (7, 5). Halfway between 1 and 7 is 4, and halfway between 1 and 5 is 3, so the midpoint is (4, 3).
6	B	The bottom side goes 3 right and 0 up, and the top side does exactly the same, so those two sides are parallel and equal. The other pair match in the same way, but no angle is a right angle, so it is a parallelogram.
7	A	The rectangle stretches from 1 to 5 across, and halfway between them is 3. A vertical line through every point with $x = 3$ is called $x = 3$.
8	E	The centre is halfway along each side of the rectangle. Halfway between 0 and 10 is 5, and halfway between 0 and 6 is 3, so the diagonals cross at (5, 3).
9	A	V is at (3, 5). Moving 4 right gives $3 + 4 = 7$, and moving 1 down gives $5 - 1 = 4$, so V lands on (7, 4).
10	D	The three corners given form two sides that are each 3 squares long. The fourth corner must be level with (1, 1) and below (4, 4), which is (4, 1).

11	C	The rectangle is $9 - 1 = 8$ squares across and $4 - 1 = 3$ squares up. The perimeter is $8 + 3 + 8 + 3 = 22$ squares.
12	E	The two corners $(2, 1)$ and $(8, 1)$ are level, so the base runs from 2 to 8 and is $8 - 2 = 6$ squares long. The height is measured from that base up to $y = 6$, which is 5 squares.
13	D	A translation slides a shape without turning it or changing its size, so every side keeps its length and the area does not change.
14	B	The base runs from 2 to 8, so it is 6 squares, and the top corner is 5 squares above the base, since $6 - 1 = 5$. Half of base times height gives $6 \times 5 = 30$, and half of 30 is 15.
15	A	The centre is the midpoint of the diagonal. Halfway between 2 and 6 is 4 for both coordinates, so the centre is $(4, 4)$.