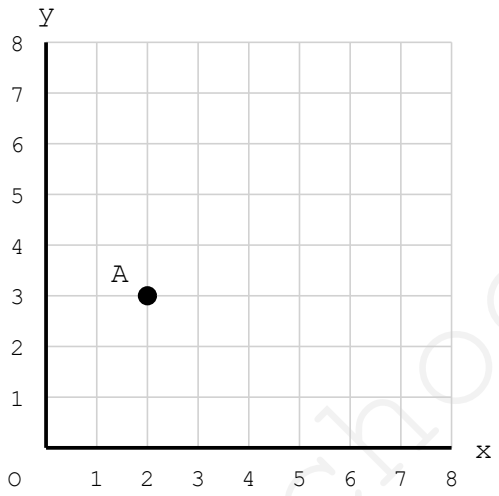
Coordinates & Graphs: Medium Practice Paper 6

Q1. Point A is marked on the grid. Both of its coordinates are doubled. What are the coordinates of the new point?



A. (2, 6) *B.* (4, 3) *C.* (4, 6) *D.* (4, 9) *E.* (6, 4)

Q2. Every corner of a shape is moved using the rule (x, y) → (x + 4, y − 2). Where does the corner at (1, 5) end up?

A. (−3, 7) *B.* (3, 5) *C.* (4, 3) *D.* (5, 3) *E.* (5, 7)

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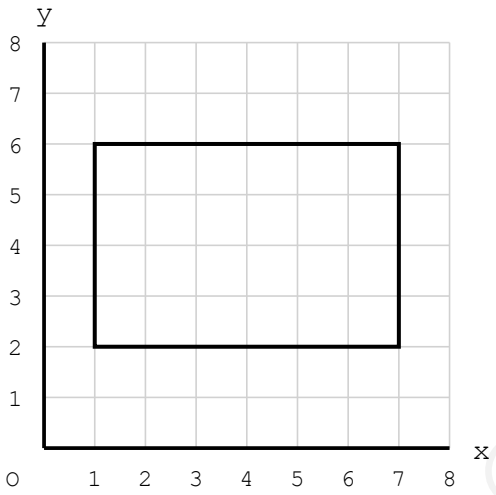
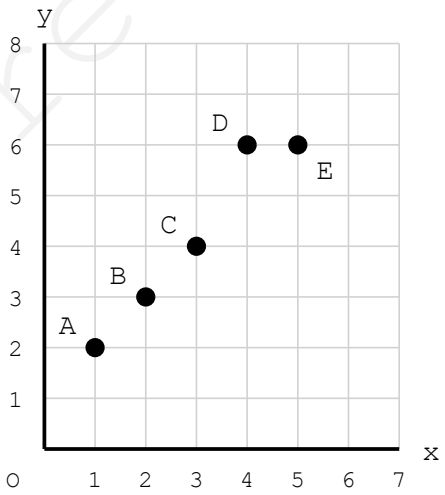
Q3. The rectangle drawn on the grid has a horizontal line of symmetry. What is the equation of that line?



A. x = 3 *B.* x = 4 *C.* y = 2 *D.* y = 4 *E.* y = 6

Q4. Five points are plotted on the grid. Four of them follow the same rule. Which point does NOT fit the pattern?



A. A *B.* B *C.* C *D.* D *E.* E

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Q5. The point (a, 5) lies exactly halfway between (2, 5) and (10, 5). What is the value of a?

A. 4 *B.* 5 *C.* 6 *D.* 8 *E.* 12

Q6. The points (1, 1), (5, 1), (5, 3) and (1, 3) are joined in order. Which of these best describes the shape made?

A. A square

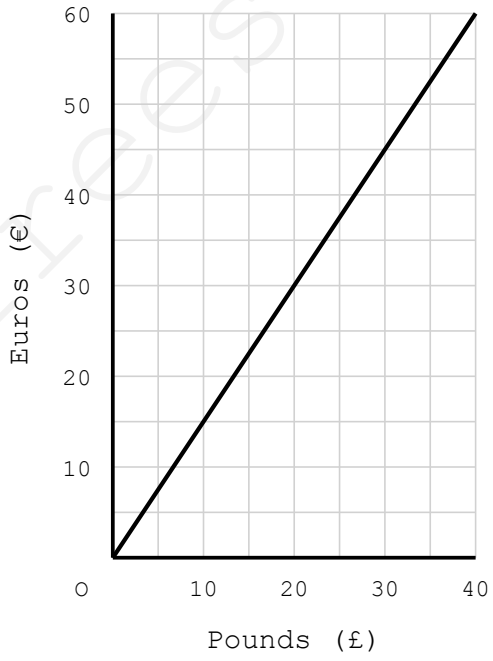
B. A rectangle that is wider than it is tall

C. A rectangle that is taller than it is wide

D. A parallelogram that is not a rectangle

E. A trapezium

Q7. This conversion graph changes pounds into euros. How many euros would you get for £30?



A. €35 *B.* €40 *C.* €45 *D.* €50 *E.* €60

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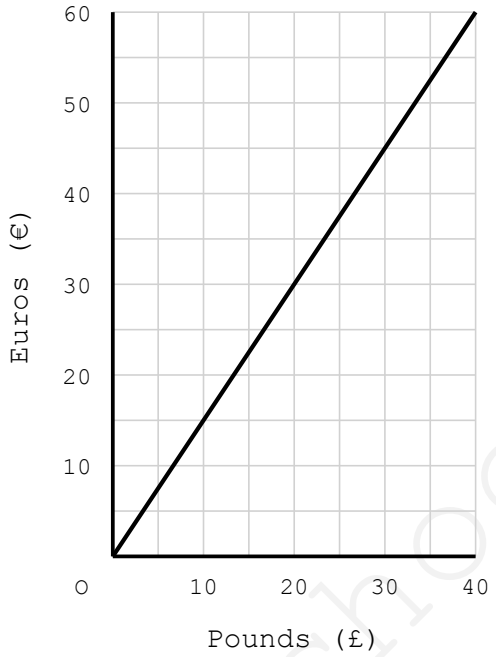
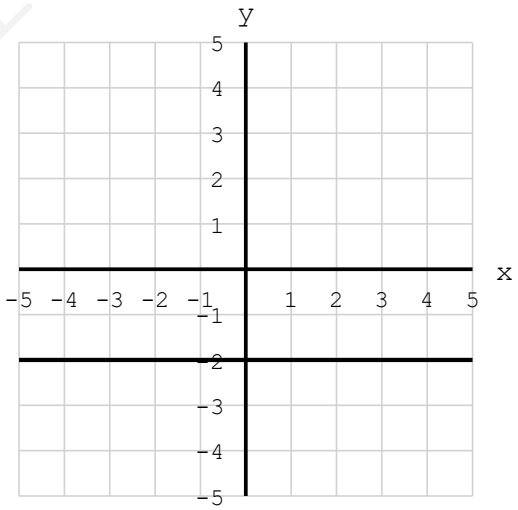
Q8. Use the same pounds to euros graph. About how many pounds would you need for €30?



A. £15 *B.* £20 *C.* £25 *D.* £30 *E.* £45

Q9. What is the equation of the straight line drawn on this grid?



A. x = −2 *B.* x = 2 *C.* y = −2 *D.* y = 2 *E.* y = x − 2

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Q10. This table of values follows one rule. Which equation fits it?

x:	1,	2,	3,	4
y:	4,	7,	10,	13

A. y = 3x + 1

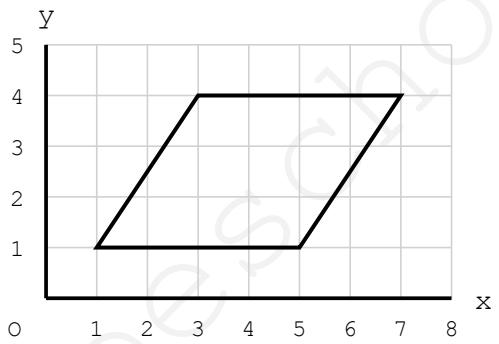
B. y = 3x − 1

C. y = x + 3

D. y = 2x + 2

E. y = 4x

Q11. What is the area of this parallelogram, in squares?



A. 9 *B.* 10 *C.* 12 *D.* 15 *E.* 16

Q12. A shape is moved so that the corner at (2, 1) ends up at (−3, 4). Which description fits the move?

A. 5 squares left and 3 squares up

B. 5 squares right and 3 squares up

C. 5 squares left and 3 squares down

D. 3 squares left and 5 squares up

E. 3 squares right and 5 squares down

Q13. The points (1, 1), (2, 2) and (3, 3) are plotted and joined by a straight line. What is the equation of that line?

A. y = x *B.* y = 1 *C.* x = 1 *D.* y = 3x *E.* y = x + 1

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Q14. Three corners of a rectangle are at (1, 1), (6, 1) and (6, 4). What is the area of the rectangle, in squares?

A. 12 *B.* 15 *C.* 18 *D.* 20 *E.* 24

Q15. Water is poured at a steady rate into a glass with straight, upright sides. Which of these describes the graph of the depth of the water against time?

A. A straight horizontal line

B. A curve that gets steeper and steeper

C. A curve that gets less and less steep

D. A straight line sloping downwards

E. A straight line sloping upwards

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