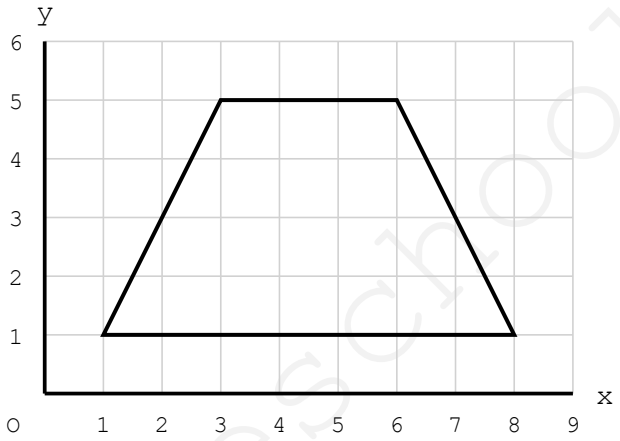
Coordinates & Graphs: Hard Practice Paper 4

Q1. A triangle has vertices at (1, 1), (7, 1) and (4, 6). What is its area, in squares?

A. 12 B. 15 C. 18 D. 24 E. 30

Q2. What is the area of this trapezium, in squares?



A. 16 B. 20 C. 24 D. 28 E. 35

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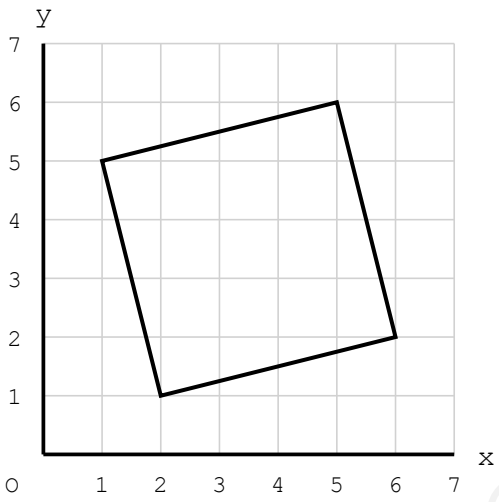
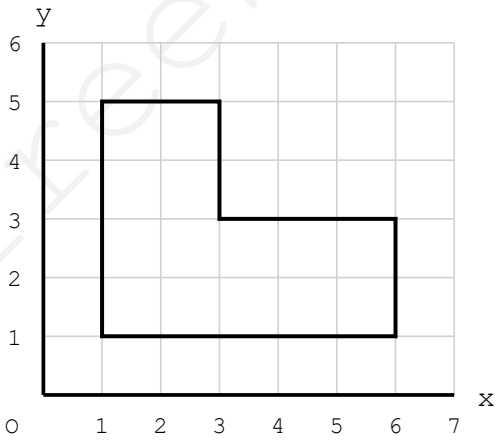
Q3. What is the area of this tilted square, in squares?



A. 15 B. 16 C. 17 D. 18 E. 20

Q4. What is the area of this L-shape, in squares?



A. 13 B. 14 C. 16 D. 18 E. 20

Q5. A triangle has vertices at (0, 0), (6, 0) and (0, 4). What is its area, in squares?

A. 12 B. 20 C. 24 D. 30 E. 48

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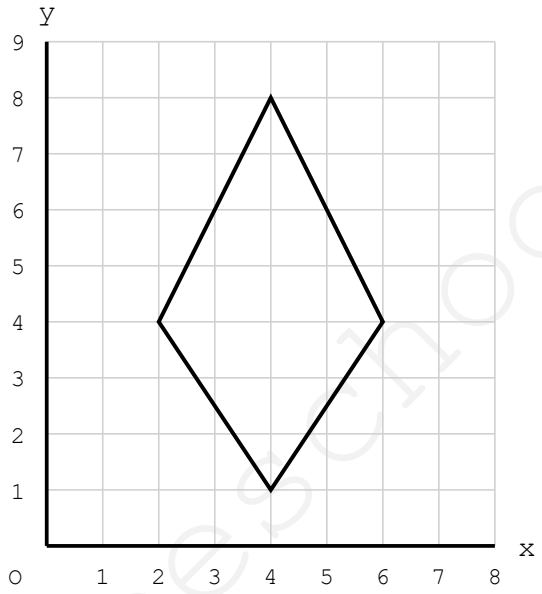
Q6. A rectangle has opposite corners at (−3, −1) and (5, 4), with its sides parallel to the axes. What is its area, in squares?

A. 13 B. 20 C. 26 D. 35 E. 40

Q7. What is the area of this kite, in squares?



A. 7 B. 10 C. 12 D. 14 E. 28

Q8. A triangle has vertices at (2, 1), (10, 1) and (5, k), where k is more than 1. Its area is 20 squares. What is the value of k?

A. 4 B. 5 C. 6 D. 8 E. 10

Q9. A rectangle has corners at (1, 2), (9, 2), (9, 8) and (1, 8). How long is each diagonal?

A. 6 units B. 8 units C. 10 units D. 12 units E. 14 units

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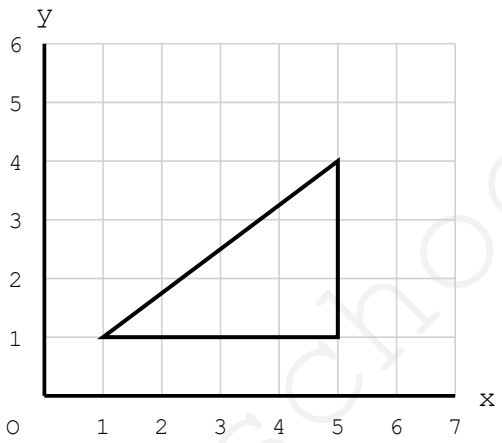
Q10. A square has an area of 36 squares. One corner is at the origin and the square lies in the region where both coordinates are positive, with its sides along the axes. Where is the corner opposite the origin?

A. (36, 36) B. (18, 18) C. (9, 4) D. (6, 6) E. (4, 9)

Q11. What is the perimeter of this triangle, in units?



A. 12 B. 13 C. 14 D. 16 E. 17

Q12. Two triangles are described. Triangle P has vertices (0, 0), (8, 0) and (0, 3). Triangle Q has vertices (0, 0), (4, 0) and (0, 6). Which is true?

A. P has the larger area

B. Q has the larger area

C. P has twice the area of Q

D. Q has three times the area of P

E. They have equal areas

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Q13. A shape with an area of 18 squares is reflected in the y-axis and the image is then translated 5 squares up. What is the area of the final image?

A. 9 squares

B. 23 squares

C. 36 squares

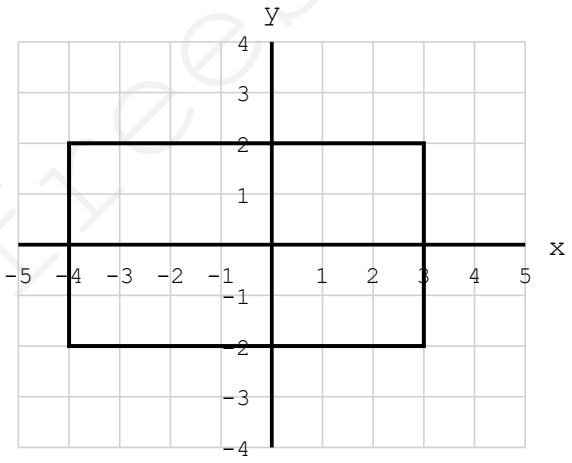
D. 18 squares

E. 90 squares

Q14. A rectangle has an area of 24 squares. Two of its corners are (2, 3) and (8, 3), and its sides are parallel to the axes. Which could be another corner?

A. (2, 7) B. (8, 9) C. (2, 24) D. (6, 3) E. (8, 4)

Q15. What is the perimeter of this rectangle, in units?



A. 11 B. 18 C. 22 D. 24 E. 28

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