

Unit 7: Shapes on the Coordinate Grid

ADVANCED · SET 2

Name: _____ Date: _____

Show all work. Write coordinate pairs as (x, y) . Give each answer exactly as asked.

1. Triangle ABC has vertices A(-6, 2), B(4, 2), and C(-6, 9). What is the area of triangle ABC in square units?

Answer: _____

3. Point M is the midpoint of the segment joining (-9, 4) and (5, -12). What are the coordinates of M?

Answer: _____

5. The point (7, -3) is reflected across the x-axis, and then that image is reflected across the y-axis. What are the coordinates of the final point?

Answer: _____

7. A parallelogram has base along the segment from (-4, -2) to (8, -2), and its opposite side lies along the line $y = 6$. What is the area of the parallelogram in square units?

Answer: _____

9. A trapezoid has vertices at (0, 0), (14, 0), (10, 6), and (3, 6). The two parallel sides are the bottom and top edges. What is the area of the trapezoid in square units?

Answer: _____

2. A rectangle on the coordinate grid has vertices at (-3, -5), (7, -5), (7, 4), and (-3, 4). What is its perimeter in units?

Answer: _____

4. A square has three of its vertices at (2, 3), (2, 11), and (10, 11). What are the coordinates of the fourth vertex?

Answer: _____

6. A triangle has vertices at (0, 0), (12, 0), and (12, 5). Exactly one interior angle is 90° . Is this triangle a right triangle? Answer yes or no.

Answer: _____

8. Segment AB has endpoint A at (-5, 7) and midpoint at (1, 2). What are the coordinates of endpoint B?

Answer: _____

10. A quadrilateral has vertices at (-2, 1), (2, 1), (2, 5), and (-2, 5). Every quadrilateral with 4 right angles and 4 equal sides is a square. How many units is the diagonal of this quadrilateral, given in the form $\sqrt{n}$?

Answer: _____