

Unit 7: Shapes on the Coordinate Grid

ADVANCED · SET 3

Name: _____ Date: _____

Show your work on scratch paper, then write only the final answer (a number, a coordinate pair like (3, 11), or a short word) on the line.

1. Priya's game piece starts at (13, 7) on a grid map. She moves it 6 units right, then 9 units up, then 11 units left, then 3 units down. Write the coordinate pair where her piece stops.

Answer: _____

3. A rectangular dog run has corners at (6, 4), (6, 19), (23, 19), and (23, 4). Each grid unit is 1 meter. What is the perimeter of the dog run in meters?

Answer: _____

5. Two angles of a triangular garden bed measure 43° and 47° . Find the third angle, then name the triangle by its angles: acute, right, or obtuse.

Answer: _____

7. An isosceles triangle sail has a top angle of 34° . The two base angles are equal to each other. What is the measure of one base angle?

Answer: _____

9. Three corners of a parallelogram-shaped tile are at (2, 3), (9, 3), and (12, 10). The side from (2, 3) to (9, 3) is parallel to the fourth side. Write the coordinate pair of the fourth corner.

Answer: _____

2. Three corners of a rectangular skate park are at (3, 2), (17, 2), and (17, 11). Its sides run along grid lines. Write the coordinate pair of the fourth corner.

Answer: _____

4. A triangular flag has corners at (5, 3), (5, 18), and (21, 3). Two of its sides run straight along grid lines. What is the area of the flag in square units?

Answer: _____

6. A quadrilateral kite has three angles measuring 118° , 47° , and 96° . What is the measure of the fourth angle?

Answer: _____

8. A rectangular vegetable plot sits on a grid. Two of its corners are (5, 8) and (5, 26). The other two corners are straight to the right. The plot's area is 234 square units. What is the x-coordinate of the right-hand corners?

Answer: _____

10. A rhombus-shaped patch on a quilt has a perimeter of 92 cm. All four sides of a rhombus are equal. How long is each side in centimeters?

Answer: _____

11. On a grid map, a bird sits at (6, 15). A straight river runs across the map at the height $y = 9$. The bird's reflection is the same distance from the river as the bird, but straight below the river line. Write the coordinate pair of the reflection.

Answer: _____

12. Leo says a triangle can have angles measuring 68° , 68° , and 46° . Add the three angles. Is Leo correct? Answer yes or no.

Answer: _____