

Unit 7: Shapes on the Coordinate Grid

ADVANCED · SET 4

Name: _____ Date: _____

Work each problem out on scratch paper, then write only the final answer (a number, a coordinate pair, or a word) on the line.

1. Maya is moving a game piece on a coordinate grid. It starts at $(-5, 12)$. She slides it 9 units right, then 15 units down, then 4 units left. What ordered pair is the game piece on now?

Answer: _____

2. A skate park is shaped like a rectangle. Three of its corners are at $(-6, 7)$, $(14, 7)$, and $(14, -5)$. What ordered pair is the fourth corner?

Answer: _____

3. A rectangular dog run has corners at $(3, -5)$, $(3, 10)$, $(19, 10)$, and $(19, -5)$. Each grid unit is 1 meter. What is the perimeter of the dog run, in meters?

Answer: _____

4. A triangular flag has a bottom edge from $(-4, 2)$ to $(11, 2)$. Its top point is at $(6, 14)$. What is the area of the flag, in square units?

Answer: _____

5. A garden bed is an isosceles triangle. The angle at its top point measures 34° . The two base angles are equal. How many degrees is each base angle?

Answer: _____

6. A triangular sail has one angle of 24° and another angle of 66° . Classify the sail by its angles: acute, right, or obtuse?

Answer: _____

7. A four-sided kite has angles measuring 118° , 74° , and 96° . How many degrees is the fourth angle?

Answer: _____

8. A floor tile is a parallelogram. One of its angles measures 64° . How many degrees is the angle right next to it along the same side?

Answer: _____

9. A square rug has one side that runs from $(5, 3)$ to $(5, 17)$ on a grid, and the rest of the square lies to the right of that side. What is the area of the rug, in square units?

Answer: _____

10. A rectangular swimming pool has opposite corners at $(-8, -5)$ and $(12, 7)$, and its sides run straight across and straight up and down. What is the area of the pool, in square units?

Answer: _____

11. A trapezoid-shaped patio has corners at $(-3, 1)$, $(9, 1)$, $(20, 9)$, and $(0, 9)$. The two sides at $y = 1$ and $y = 9$ are parallel. What is the area of the patio, in square units?

Answer: _____

12. A sign has 4 sides. All 4 sides are exactly 15 cm long, but none of its angles measure 90° . Is the sign a square? Answer yes or no.

Answer: _____