

Coordinate Plane (Quadrant I)

Geometry · Grade 5

◆ Medium · 10 Questions

Solve each problem. Show your work in the space provided. Write your answer on the line.

1. Reflect point (3, 4) across the y-axis.

What are the new coordinates?

Answer: _____

2. Plot the rectangle with corners at (1,1), (5,1), (5,4), (1,4).

Find its perimeter and area.

Answer: _____

3. Find the midpoint of the segment from $(2, 4)$ to $(8, 10)$.

Answer: _____

4. Three corners of a square are $(0,0)$, $(4,0)$, $(4,4)$.
What is the fourth corner?

Answer: _____

5. Find the distance from $(2, 5)$ to $(2, 11)$.

Answer: _____

6. Find the distance from $(3, 7)$ to $(9, 7)$.

Answer: _____

7. Reflect $(5, 2)$ across the x-axis.

Answer: _____

8. Find the midpoint of the segment from $(0, 0)$ to $(6, 8)$.

Answer: _____

9. Three corners of a rectangle: $(2,3)$, $(8,3)$, $(8,7)$. Find the fourth.

Answer: _____

10. What are the coordinates of a point 4 left and 3 up from $(5, 2)$?

Answer: _____

Answer Key

Coordinate Plane (Quadrant I) — Medium

1. **$(-3, 4)$**

Reflection across y -axis: negate the x -coordinate. $(3, 4) \rightarrow (-3, 4)$.

2. **Width=4, Height=3. Perimeter=14 units. Area=12 sq units.**

Width: $5-1=4$. Height: $4-1=3$. Perimeter= $2(4+3)=14$. Area= $4 \times 3=12$.

3. **$(5, 7)$**

Midpoint = $((2+8)/2, (4+10)/2) = (5, 7)$.

4. **$(0, 4)$**

The fourth corner completes the square. It must be at $(0, 4)$.

5. **6 units**

Same x . $|11-5| = 6$.

6. **6 units**

Same y . $|9-3| = 6$.

7. **$(5, -2)$**

Negate the y -coordinate.

8. **$(3, 4)$**

Midpoint = $((0+6)/2, (0+8)/2) = (3, 4)$.

9. **$(2, 7)$**

Fourth corner has $x=2$ and $y=7$.

10. **$(1, 5)$**

$5-4=1$; $2+3=5$.