

Coordinate Plane (Four Quadrants)

Geometry · Grade 6

Score: _____ / 10

◆ Medium · 10 Questions

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

1. In which quadrant is the point $(-3, 5)$?

Answer: _____

2. In which quadrant is the point $(-4, -2)$?

Answer: _____

3. Point A is at $(-2, 3)$ and Point B is at $(4, 3)$.

Find the distance between them.

Answer: _____

4. Point P is at $(1, -5)$ and Point Q is at $(1, 4)$.

Find the distance PQ.

Answer: _____

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

What are the new coordinates?

Answer: _____

6. A point (x, y) is in Quadrant IV.

A different point is its reflection across the x -axis.

In which quadrant is the reflection?

Answer: _____

7. Translate point $(3, -2)$ by moving 4 left and 5 up.

Find the new coordinates.

Answer: _____

8. Find the midpoint of $(-3, 2)$ and $(5, -6)$.

Answer: _____

9. Reflect point $(4, -3)$ across the y -axis. New coordinates?

Answer: _____

10. Find the distance from $(-5, 2)$ to $(3, 2)$.

Answer: _____

Answer Key

Coordinate Plane (Four Quadrants) — Medium

1. Quadrant II (x negative, y positive).

Q II: $x < 0$ and $y > 0$.

2. Quadrant III (both negative).

Q III: $x < 0$ and $y < 0$.

3. 6 units

Same y: distance = $|4 - (-2)| = |4 + 2| = 6$ units.

4. 9 units

Same x: distance = $|4 - (-5)| = 9$ units.

5. (-2, -5)

Reflection across x-axis: negate the y-coordinate. $(-2, 5) \rightarrow (-2, -5)$.

6. Quadrant I.

Q IV is $(+, -)$. Reflecting across x-axis negates y: $(+, -) \rightarrow (+, +) = Q I$.

7. (-1, 3)

Left: subtract from x. Up: add to y. $(3 - 4, -2 + 5) = (-1, 3)$.

8. (1, -2)

Midpoint = $((-3 + 5)/2, (2 + (-6))/2) = (2/2, -4/2) = (1, -2)$.

9. (-4, -3)

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

10. 8 units

Same y; distance = $|3 - (-5)| = 8$ units.