

Grade 6 - The Coordinate Plane and Polygons - Quiz

Common Core 6.NS.C.6b, 6.NS.C.6c, 6.NS.C.8, 6.G.A.3 · maths-pdf.fr/en/

Name: _____ Class: _____ Date: ____/____/____

This quiz has 10 multiple-choice questions on the coordinate plane, reflections, distance, and polygons (Common Core 6.NS.C.6, 6.NS.C.8, and 6.G.A.3). Pick one answer for each and read the explanation.

Grade 6 · Common Core State Standards: **6.NS.C.6b, 6.NS.C.6c, 6.NS.C.8, 6.G.A.3**

Questions

Question 1

In which quadrant is $(-3,5)$?

- A. Quadrant I
- B. Quadrant II
- C. Quadrant III
- D. Quadrant IV

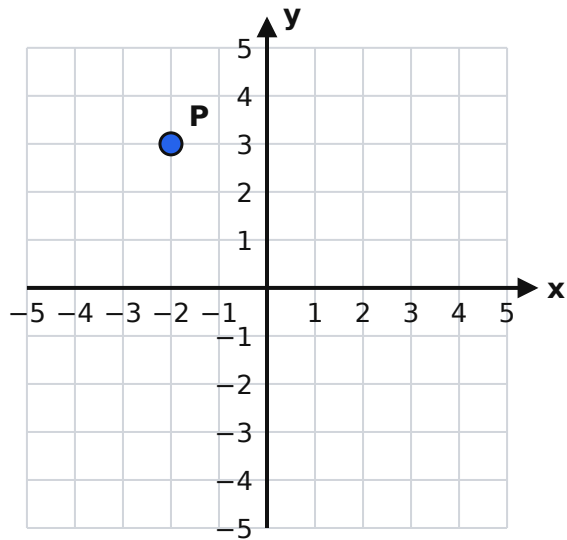
Question 2

What is the reflection of $(4,-6)$ across the x-axis?

- A. $(-4,-6)$
- B. $(4,6)$
- C. $(-4,6)$
- D. $(6,4)$

Question 3

What are the coordinates of point P?



Point P.

- A. $(-2, 3)$
- B. $(3, -2)$
- C. $(2, 3)$
- D. $(-2, -3)$

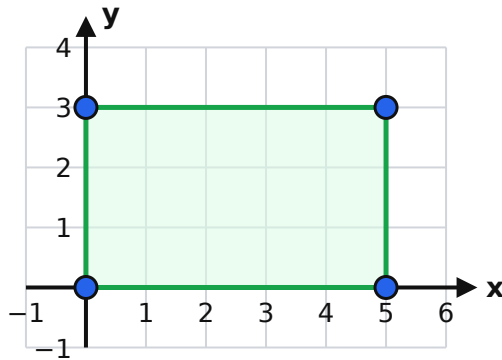
Question 4

What is the distance between $(2, 5)$ and $(2, -3)$?

- A. 2
- B. 5
- C. 4
- D. 8

Question 5

A rectangle has vertices $(0, 0)$, $(5, 0)$, $(5, 3)$, and $(0, 3)$. What is its area?



Rectangle.

- A. 16 square units
- B. 8 square units
- C. 15 square units
- D. 30 square units

Question 6

Which point lies on the y-axis?

- A. $(0, -4)$
- B. $(-4, 0)$
- C. $(4, 4)$
- D. $(-4, -4)$

Question 7

What is the distance between $(-7, 2)$ and $(1, 2)$?

- A. 6
- B. 8
- C. -6
- D. 9

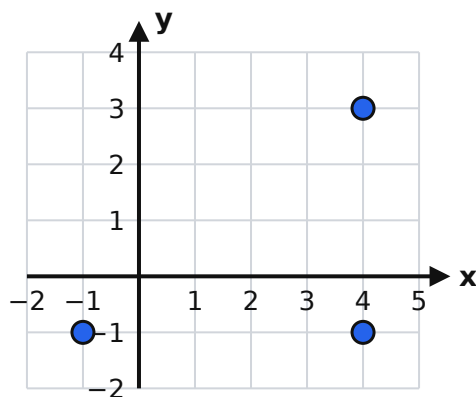
Question 8

A point is reflected across both axes. If the original point is $(3, 8)$, where is the final point?

- A. $(3, -8)$
- B. $(-3, 8)$
- C. $(-3, -8)$
- D. $(8, 3)$

Question 9

Three vertices of a rectangle are $(-1, -1)$, $(4, -1)$, and $(4, 3)$. What is the fourth vertex?



Three vertices.

- A. $(3, -1)$
- B. $(-1, 4)$
- C. $(4, 4)$
- D. $(-1, 3)$

Question 10

What is the perimeter of the polygon with vertices $(1, 1)$, $(4, 1)$, $(4, 5)$, and $(1, 5)$?

- A. 14 units
- B. 12 units
- C. 24 units
- D. 7 units

Answers

1. **B** – A negative x and a positive y put the point up and to the left: Quadrant II.
2. **B** – Reflecting across the x-axis changes only the sign of y.
3. **A** – Move left 2 and up 3: (-2, 3). The x-coordinate comes first.
4. **D** – Same x: $|5| + |-3| = 8$. Subtracting $5-3$ gives 2.
5. **C** – $5 \times 3 = 15$. The perimeter is 16.
6. **A** – Points on the y-axis have $x = 0$.
7. **B** – Same y: $|-7| + |1| = 8$.
8. **C** – Both signs change.
9. **D** – The fourth vertex shares the x-value of (-1, -1) and the y-value of (4, 3).
10. **A** – Sides are 3 and 4, so $2(3+4) = 14$. 12 is the area.

Remember

- An ordered pair (x, y) gives the horizontal move first, then the vertical move.
- The signs of x and y tell the quadrant.
- Reflecting across the x-axis changes the sign of y; across the y-axis changes the sign of x.
- Points that share a coordinate are a distance apart equal to the difference or sum of the absolute values.
- Side lengths of a polygon on the plane give its perimeter and area.