

Grade 6 · The Coordinate Plane · Worksheet

Common Core 6.NS.C.6b, 6.NS.C.6c, 6.NS.C.8, 6.G.A.3 · mathovore.fr

Name: _____ Date: ____/____/____ Score: _____

This worksheet has 10 problems on the four-quadrant coordinate plane, aligned to Common Core 6.NS.C.6b, 6.NS.C.6c, 6.NS.C.8, and 6.G.A.3. Problems 1 to 7 cover quadrants, plotting, reflections, and distances between points.

Problems 8 to 10 draw polygons and solve map problems with several steps. Use absolute value to find each distance.

Grade 6 Common Core: 6.NS.C.6b · 6.NS.C.6c · 6.NS.C.8 · 6.G.A.3

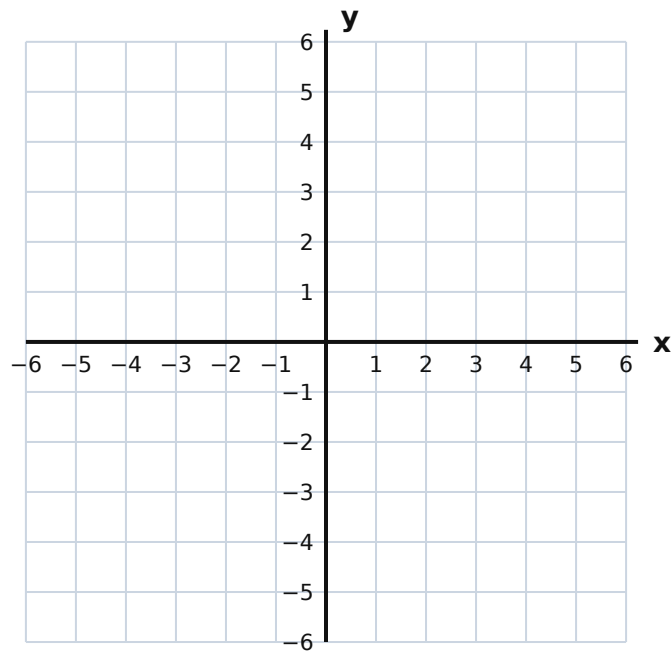
Problem 1: Name the quadrant

Name the quadrant of each point. If a point is on an axis, name the axis.

- a. $(3,5)$
- b. $(-2,4)$
- c. $(-6,-1)$
- d. $(7,-3)$
- e. $(0,-4)$

Problem 2: Plot the points

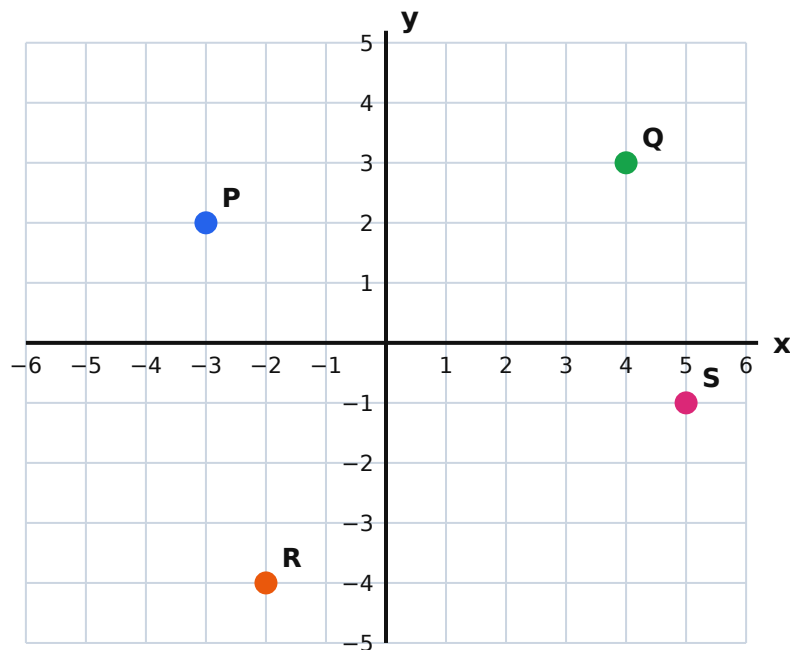
Plot and label these points on the coordinate plane: $A(2,3)$, $B(-4,1)$, $C(-3,-5)$, and $D(5,-2)$.



Plot the four points here.

Problem 3: Read ordered pairs

Write the ordered pair for each labeled point shown on the coordinate plane.

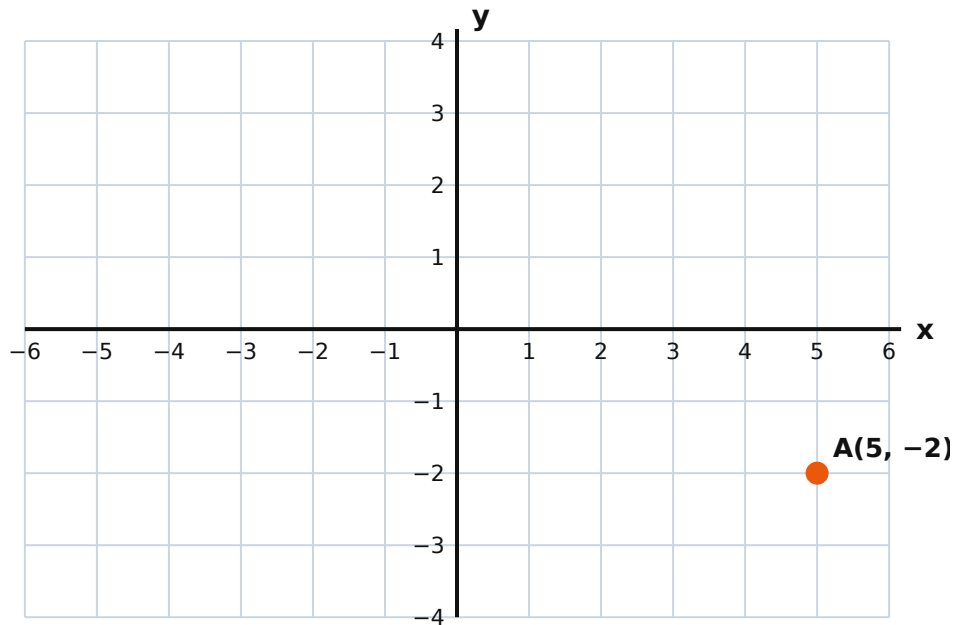


Points P, Q, R and S.

Problem 4: Reflect a point

The point $A(5, -2)$ is shown. Write the coordinates of its reflection across each line.

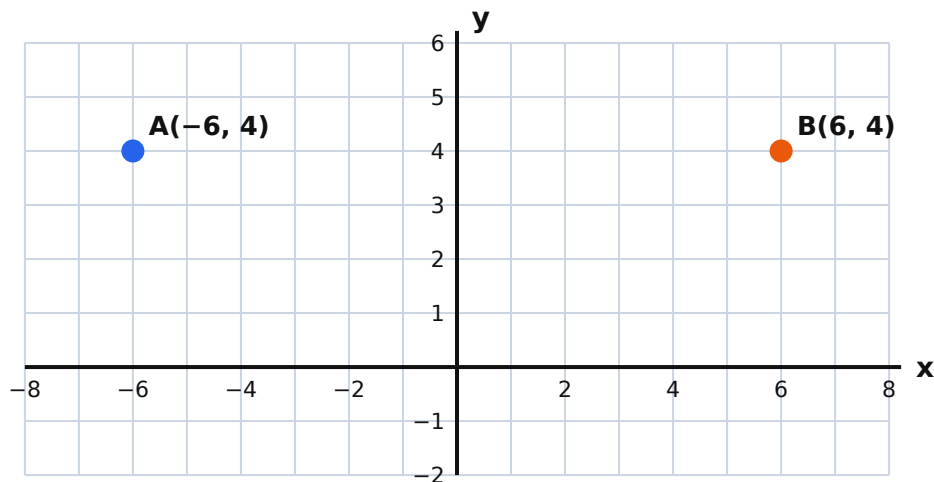
- a. The x-axis
- b. The y-axis
- c. The x-axis, then the y-axis



The point A.

Problem 5: Points that mirror each other

Points $A(-6, 4)$ and $B(6, 4)$ are shown. Describe how the coordinates of A and B are related, name the axis that is the line of reflection, and find the distance from A to B.



Points A and B.

Problem 6: Distance on a horizontal line

Find the distance between $(-7,3)$ and $(2,3)$.

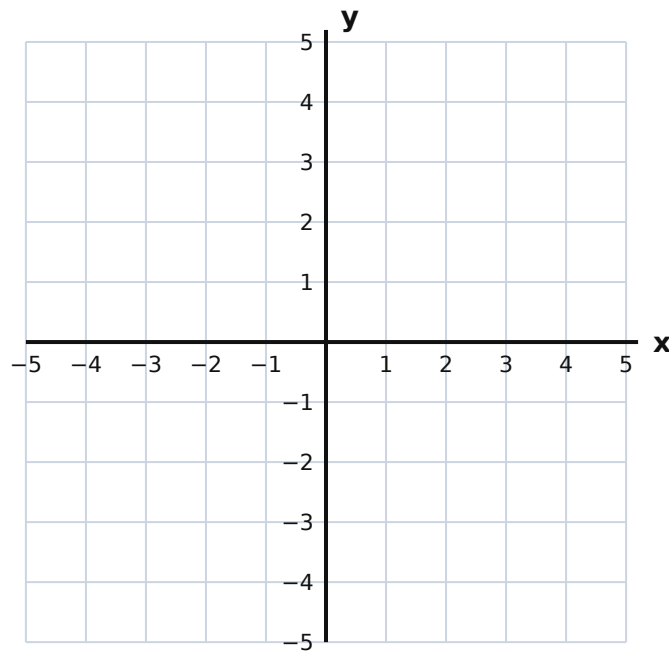
Problem 7: Distance on a vertical line

Find each distance.

- a. $C(4,-8)$ and $D(4,-3)$
- b. $E(-2,6)$ and $F(-2,-5)$

Problem 8: Draw a rectangle

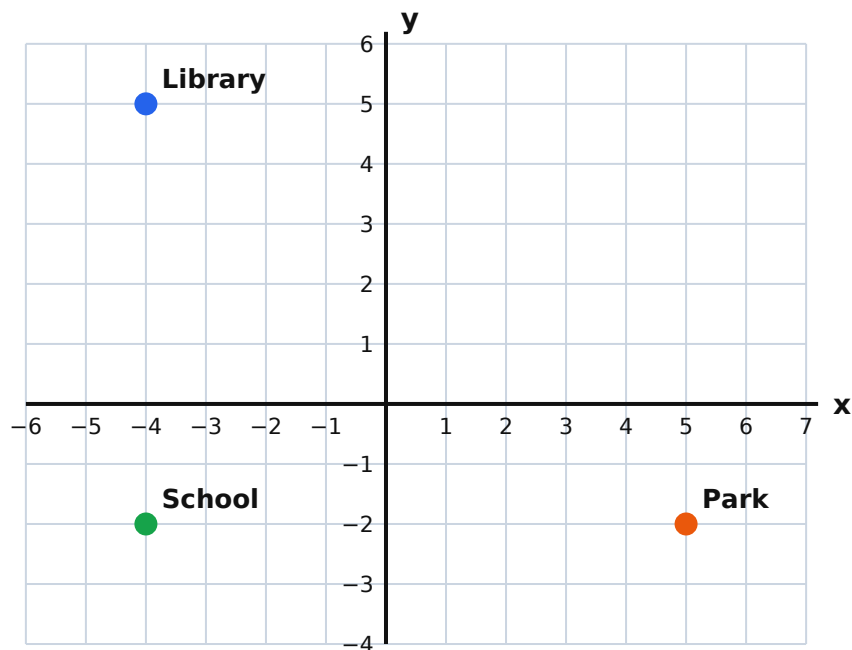
Plot the points $(-3,2)$, $(4,2)$, $(4,-3)$, and $(-3,-3)$. Connect them in order to form a rectangle. Find the length of each side and the perimeter.



Draw the rectangle here.

Problem 9: Walking route

On a town map, each unit is one city block. The library is at $(-4,5)$, the school is at $(-4,-2)$, and the park is at $(5,-2)$. Priya walks from the library to the school, and then to the park. Find the distance of each part and the total distance.

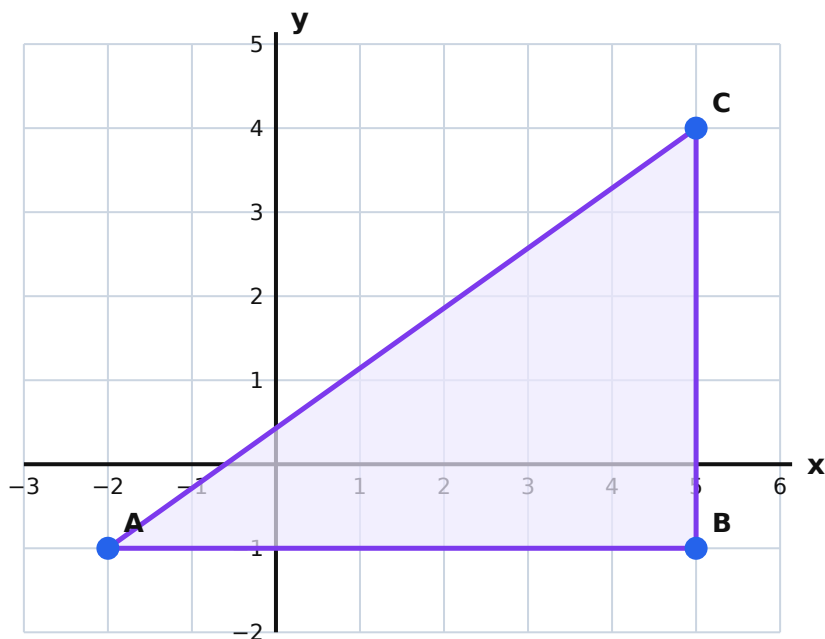


Each unit is one city block.

Problem 10: Triangle and its reflection

Triangle ABC has vertices $A(-2, -1)$, $B(5, -1)$, and $C(5, 4)$.

- Find the lengths of sides AB and BC .
- Reflect the triangle across the x-axis. Write the coordinates of A' , B' , and C' .
- Find the lengths of $A'B'$ and $B'C'$, and compare them with part a.



Triangle ABC .