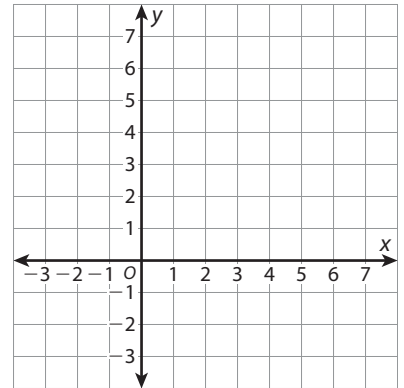




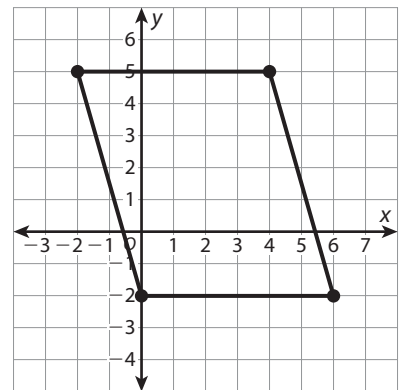
Solving Problems About Polygons in the Coordinate Plane

► Solve each problem.

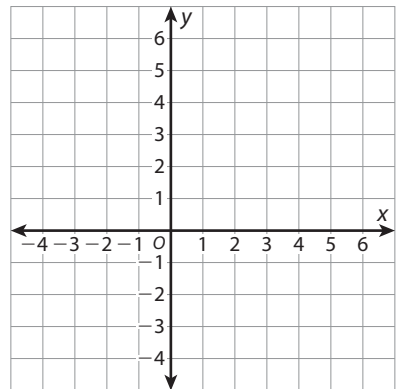
- 1 A rectangle has vertices $(-2, 6)$, $(6, 6)$, $(6, -1)$, and $(-2, -1)$. Graph the rectangle in the coordinate plane. What is the area of the rectangle? What is the perimeter of the rectangle? Show your work.



- 2 What is the area of the parallelogram shown in the coordinate plane? Explain.



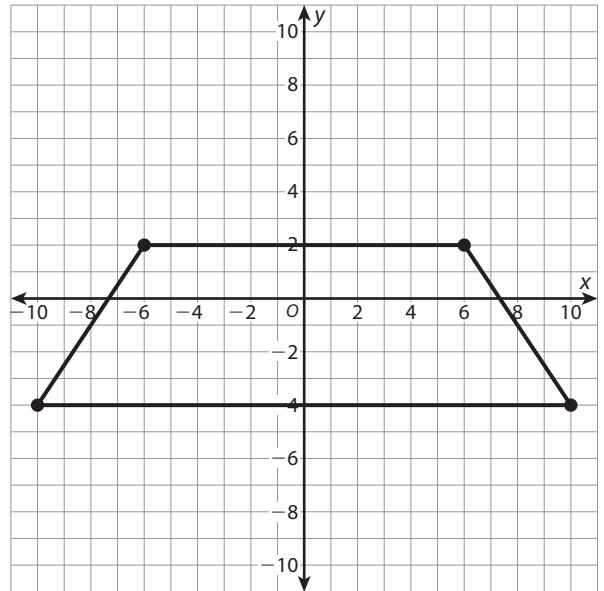
- 3 Points $A(-2, -3)$, $B(-2, 4)$, and $C(3, 6)$ are three vertices of parallelogram $ABCD$. Opposite sides of a parallelogram have the same length. Draw the parallelogram in the coordinate plane and label the coordinates of the fourth point.





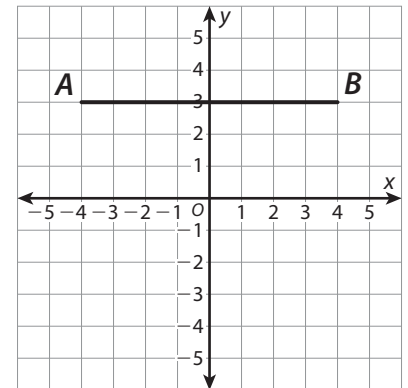
Solving Problems About Polygons in the Coordinate Plane *continued*

- 4 A plan for a garden is drawn in the coordinate plane. The garden is in the shape of a trapezoid. Each unit in the coordinate plane represents 1 foot. What is the total area of the garden? Show or explain how you arrived at your answer.



- 5 Franklin is drawing a model of a rectangular swimming pool. He marks two points, A and B , in the coordinate plane and connects them to represent one side of the pool. Points C and D are reflections of B and A , respectively, across the x -axis. Each unit in the coordinate plane represents 1 meter.

Draw a rectangle in the coordinate plane to model the swimming pool.



What is the area of the swimming pool? Explain.