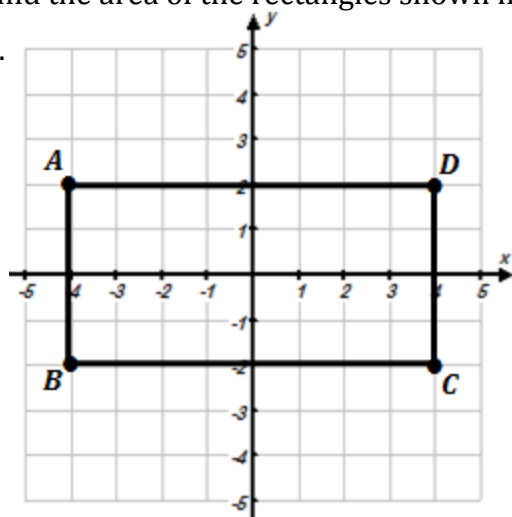


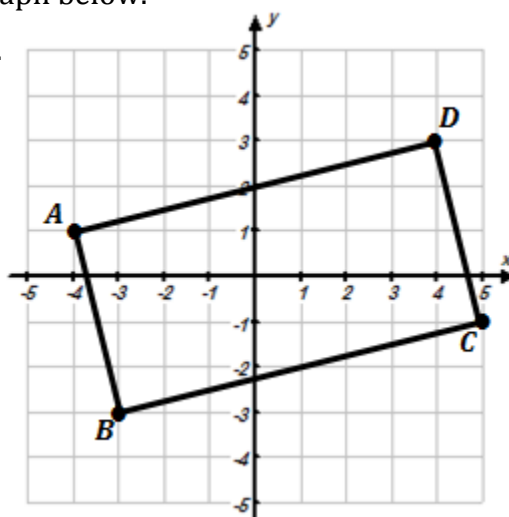
Areas:

1. Find the area of the rectangles shown in each graph below.

A.

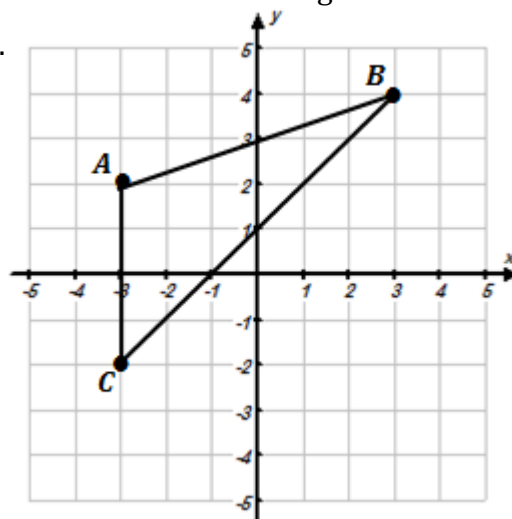


B.

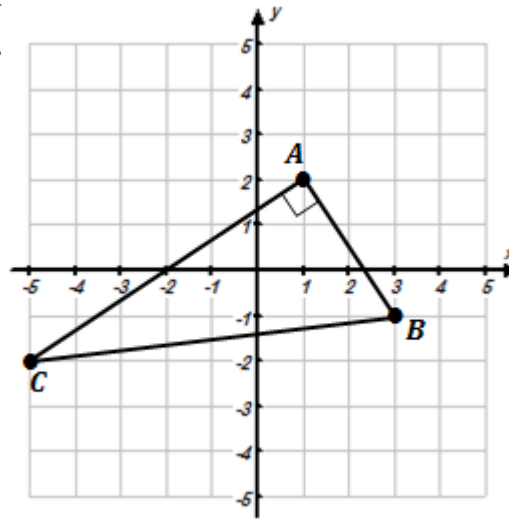


2. Find the area of the triangles shown in each graph below.

A.

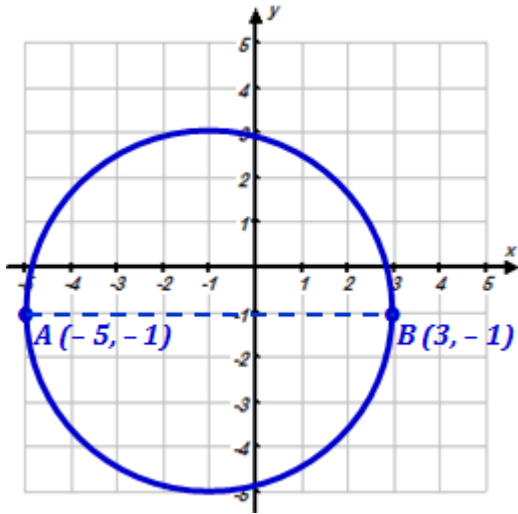


B.

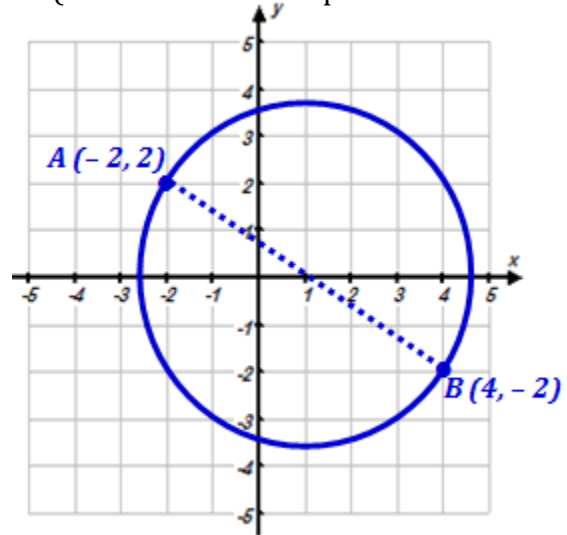


3. Find the area of the circles shown in each graph below. (AB is a diameter represented in both circles.)

A.



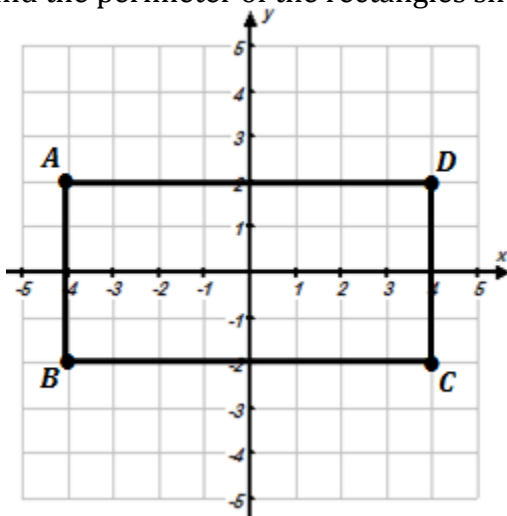
B.



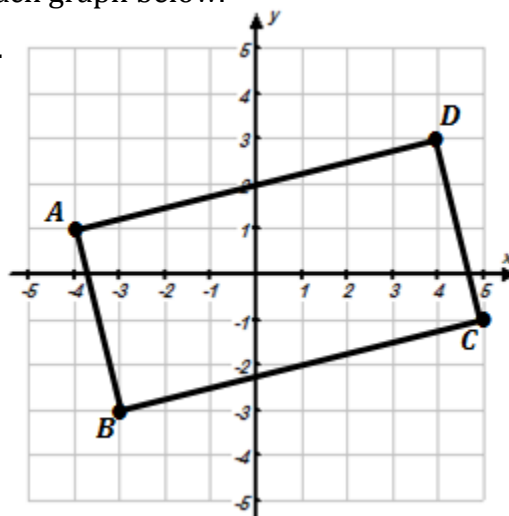
Perimeters:

4. Find the perimeter of the rectangles shown in each graph below.

A.

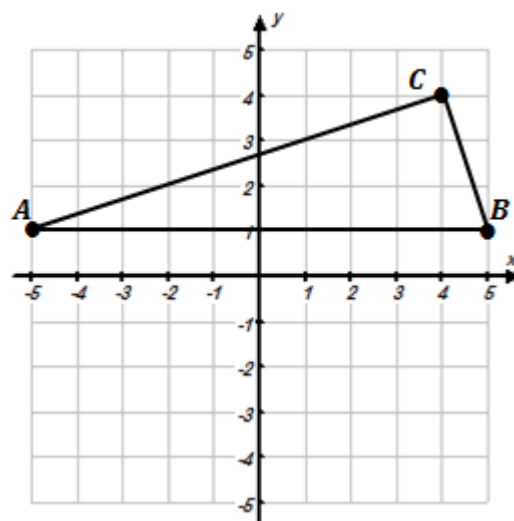


B.

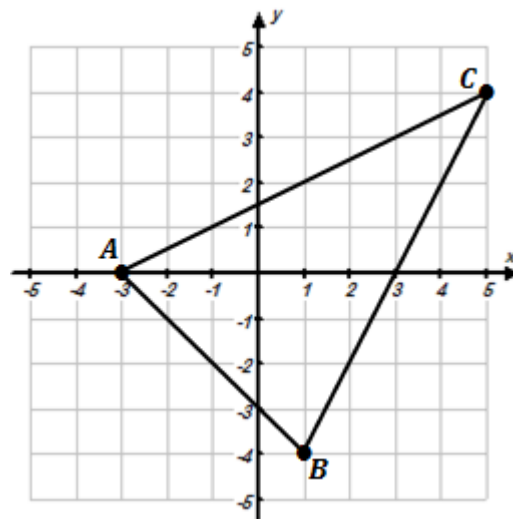


Coordinate Verification and Proofs

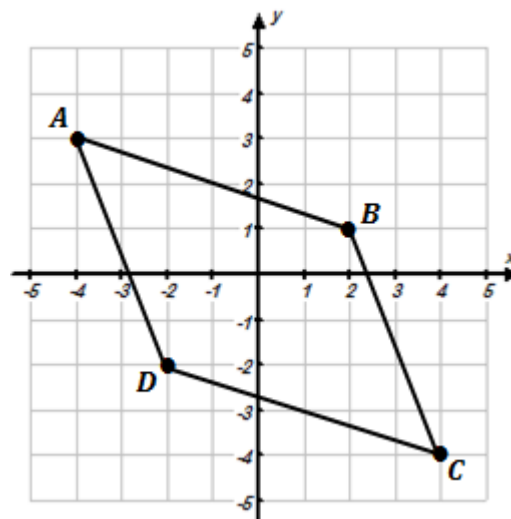
5. Prove the triangle ABC shown in the graph is a **RIGHT** triangle using the coordinates of its vertices: A(- 5, 1), B(5,1), and C(4,4).



6. Prove the triangle ABC shown in the graph is an **ISOSCELES** triangle using the coordinates of its vertices: A(- 3, 0), B(1, - 4), and C(5,4).

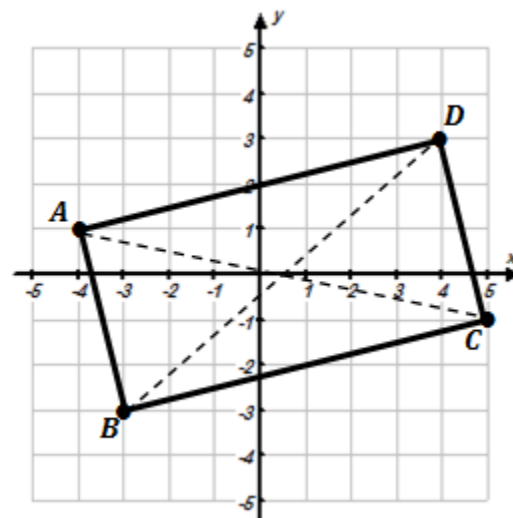


7. Prove the quadrilateral ABC D shown in the graph is a **PARALLELOGRAM** using the coordinates of its vertices: A(- 4, 3), B(2, 1), C(4, - 4), and D(- 2, - 2).

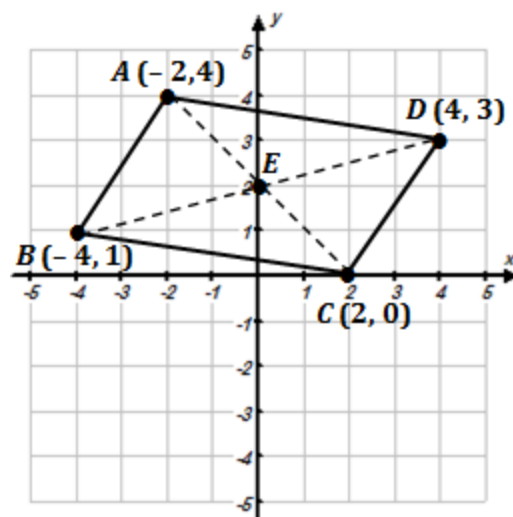


Coordinate Verification and Proofs

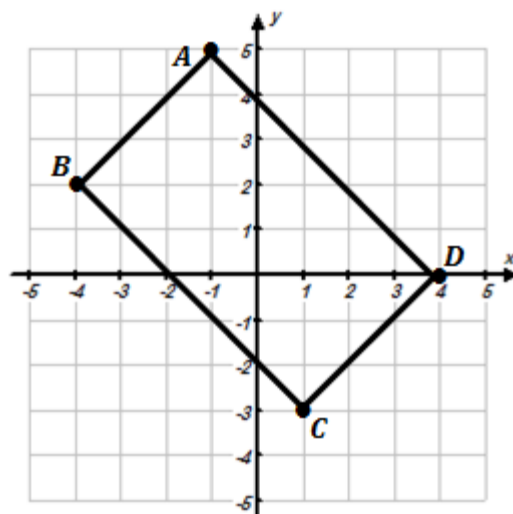
8. Prove the rectangle ABC D shown in the graph has **congruent** diagonals using the coordinates of its vertices: A(- 4, 1), B(- 3, - 3), C(5, - 1), and D(4, 3).



9. Prove the parallelogram ABC D shown in the graph has diagonals that bisect each other using the coordinates of its vertices: A(- 2, 4), B(- 4, - 1), C(2, 0), and D(4, 3).

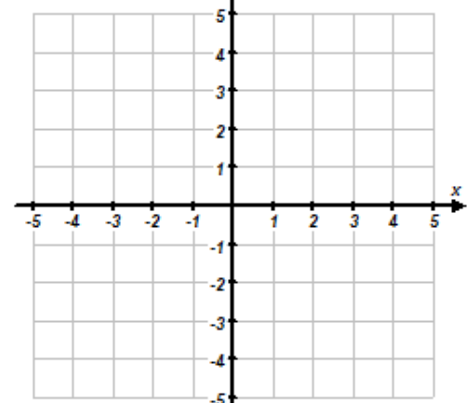


10. Prove the quadrilateral ABC D shown in the graph is a **RECTANGLE** using the coordinates of its vertices: A(- 1, 5), B(- 4, 2), C(1, - 3), and D(4, 0) and showing that consecutive sides are perpendicular.

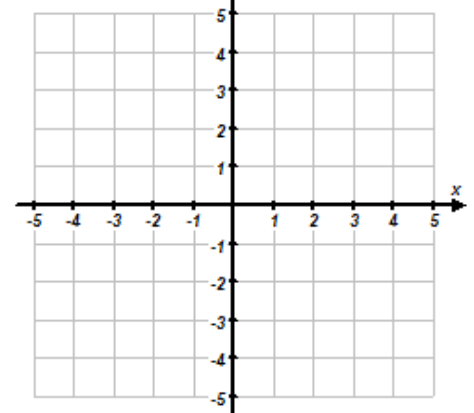


11. The coordinates of Quadrilateral QRST are Q(- 3, 1), R (- 2, 4), S(4, 2), T(3, - 1)

- a. Algebraically verify that the Quadrilateral is a Rectangle by showing that consecutive sides are perpendicular.



- b. Algebraically verify the diagonals $\overline{QS}$ and $\overline{RT}$ are congruent.



12. Given that the 3 points shown at the right are vertices of a parallelogram, find all of the possible points of the fourth point that would create a parallelogram. There are 3 of them draw each one.

