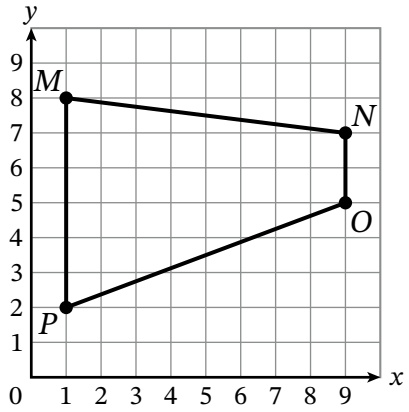
FAMILY MATH

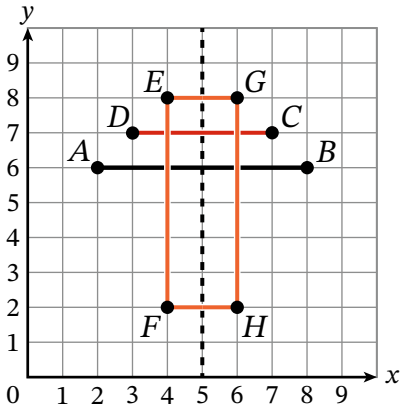
Solve Mathematical Problems in the Coordinate Plane

Dear Family,

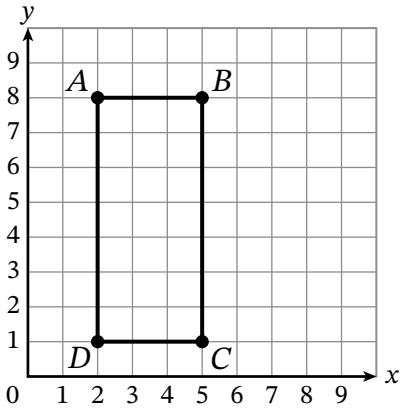
Your student is learning more about the structure of the coordinate plane as they explore lines, angles, and figures. They study lines, graph and classify quadrilaterals, and draw symmetric figures. Students also solve problems involving symmetry, area, and perimeter in the plane. This work prepares them for learning in grade 6 that the coordinate plane extends and includes negative numbers.



Students build and name shapes in the coordinate plane. The grid lines meet at right angles, so students can use them to decide whether the angles in the shape are acute, obtuse, or right.



Students use the coordinate plane as a tool to think about symmetry of figures.



Students use the coordinate plane as a tool to calculate the area and perimeter of rectangles.

At-Home Activity

Create a Quadrilateral

Ask your student to roll a die twice or choose two numbers between 1 and 6. (If a die is not available, write the numbers 1–6 on small pieces of paper.) Make the first number the x-coordinate of an ordered pair and the second number the y-coordinate of the ordered pair. Have your student repeat the process three times and then plot the ordered pairs in a 10 by 10 coordinate grid. You can draw a grid on graph paper or use the one provided. Ask your student to connect the points to create a quadrilateral, and then ask questions about the quadrilateral.

- "Are there any parallel or perpendicular sides?"
- "Which angles of the quadrilateral are acute? Obtuse? Right?"