Topic D
Problem Solving in the Coordinate Plane

5.OA.3, 5.G.2

Focus Standards:

5.OA.3 Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.

5.G.2 Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

Instructional Days: 3

Coherence -Links from: G4–M4 Angle Measure and Plane Figures
-Links to: G6–M1 Ratios and Unit Rates

Applications of the coordinate plane in the real world are the focus of Topic D. Students use the coordinate plane to show locations, movement, and distance on maps. Line graphs are also used to explore patterns in the coordinate plane and make predictions based on those patterns (5.G.2, 5.OA.3). To close their work with the coordinate plane, students solve real-world problems.

A Teaching Sequence Toward Mastery of Problem Solving in the Coordinate Plane

Objective 1: Draw symmetric figures on the coordinate plane. (Lesson 18)

Objective 2: Plot data on line graphs and analyze trends. (Lesson 19)

Objective 3: Use coordinate systems to solve real-world problems. (Lesson 20)