Topic B:

Polygons on the Coordinate Plane

6.G.A.3

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| Focus Standard: | 6.G.A.3 | Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems. |
| Instructional Days: | 4 |  |
| Lesson 7: | Distance on the Coordinate Plane (P)[[1]](#footnote-1) | |
| Lesson 8: | Drawing Polygons in the Coordinate Plane (P) | |
| Lesson 9: | Determining Perimeter and Area of Polygons on the Coordinate Plane (P) | |
| Lesson 10: | Distance, Perimeter, and Area in the Real World (E) | |

In Lesson 7 of Topic B, students apply prior knowledge from Module 3 by using absolute value to determine the distance between integers on the coordinate plane in order to find side lengths of polygons. Then they move to Lesson 8, where students draw polygons in the coordinate plane when given coordinates for vertices. They find the area enclosed by a polygon by composing and decomposing, using polygons with known area formulas. They name coordinates that define a polygon with specific properties. In Lesson 9, students find the perimeter of rectilinear figures using coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. They continue to find the area enclosed by a polygon on the coordinate plane by composition and decomposition. The topic concludes with Lesson 10, where students apply their knowledge of distance, perimeter, and area to real-life contextual situations. Students learn more than a key word reading of contexts. They comprehend different problem contexts and apply concepts accordingly.

1. Lesson Structure Key: **P**-Problem Set Lesson, **M**-Modeling Cycle Lesson, **E-**Exploration Lesson, **S-**Socratic Lesson [↑](#footnote-ref-1)