6.G Polygons in the Coordinate Plane

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Alignments to Content Standards

- Alignment: 6.G.A.1
- Alignment: 6.G.A.3

Tags

- *This task is not yet tagged.*

The vertices of eight polygons are given below. For each polygon:

- Plot the points in the coordinate plane connect the points in the order that they are listed.
- Color the shape the indicated color and identify the type of polygon it is.
- Find the area.

a. The first polygon is GREY and has these vertices:

$$(-7,4)\ (-8,5)\ (-8,6)\ (-7,7)\ (-5,7)\ (-5,5)\ (-7,4)$$

b. The second polygon is ORANGE and has these vertices:

$$(-2,-7)\ (-1,-4)\ (3,-1)\ (6,-7)\ (-2,-7)$$

c. The third polygon is GREEN and has these vertices:

$$(4,3)\ (3,3)\ (2,2)\ (2,1)\ (3,0)\ (4,0)\ (5,1)\ (5,2)\ (4,3)$$

d. The fourth polygon is BROWN and has these vertices:

$$(0,-10)\ (0,-8)\ (7,-10)\ (0,-10)$$

e. The fifth polygon is PURPLE and has these vertices:

$$(-8,-5)\ (-8,-8)\ (-5,-8)\ (-5,-5)\ (-8,-5)$$

f. The sixth polygon is PINK and has these vertices:

$$(9,-1)\ (6,1)\ (6,-3)\ (9,-1)$$

g. The seventh polygon is BLUE and has these vertices:

$$(-6,-4)\ (-6,1)\ (-9,1)\ (-9,-4)\ (-6,-4)$$

h. The eighth polygon is YELLOW and has these vertices:

$$(-5,1)\ (-3,-3)\ (-1,-2)\ (0,3)\ (-3,3)\ (-5,1)$$

Commentary

The purpose of this task is for students to practice plotting points in the coordinate plane and finding the areas of polygons. This task assumes that students already understand how to find areas of polygons by decomposing them into rectangles and triangles; see, for example, **6.G Finding Areas of Polygons (http://www.illustrativemathematics.org/illustrations/647)**.

Solutions

Solution: Solution

- Here are the figures: