Module 9   Characteristics of Geometric Shapes
Lesson 1   Polygons

Lesson Notes 9.1

Lesson Objectives

- Identify and model regular and irregular polygons including decagon.
- Identify and model convex and concave polygons.
- Identify, draw, classify, and compare geometric figures using models and real-world examples.

Subtopic 1   Convex and Concave Polygons

Polygon

- A _____ plane figure

- Made of line _____ called sides

- Sides intersect at _____

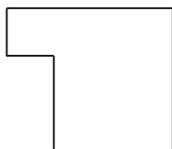A plane figure is flat or _____ and lies entirely in one plane.

A polygon is _____ if a line segment joining any two interior points lies _____ inside the polygon.

A polygon is concave if a _____ _____ joining any two interior points lies partially _____ the polygon.

★**1**   Is the outline of the sign a polygon? Explain your answer.

(93)

★**2**   Is the polygon convex or concave?

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Subtopic 2   **Classifying Polygons According to Sides**
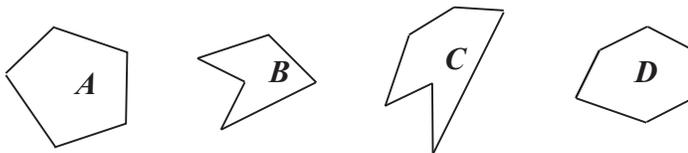
_____ are classified according to their number of sides.

Polygon	Sides
triangle	3
_____	4
pentagon	5
_____	6
heptagon	7
_____	8
nonagon	9
_____	10

3   An Earth picture shows the view of a building in Washington, DC. The building is named for the number of sides it has. What is the name of the building?

4   Identify the concave hexagon.

A   B   C   D

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> **Subtopic 3**   **Regular and Irregular Polygons**

Regular Polygon

A polygon that is both _____ and _____

Irregular Polygon

A _____ that is not a _____ polygon

5   Is a square a regular polygon? Explain.