

Four-Triangle Graph

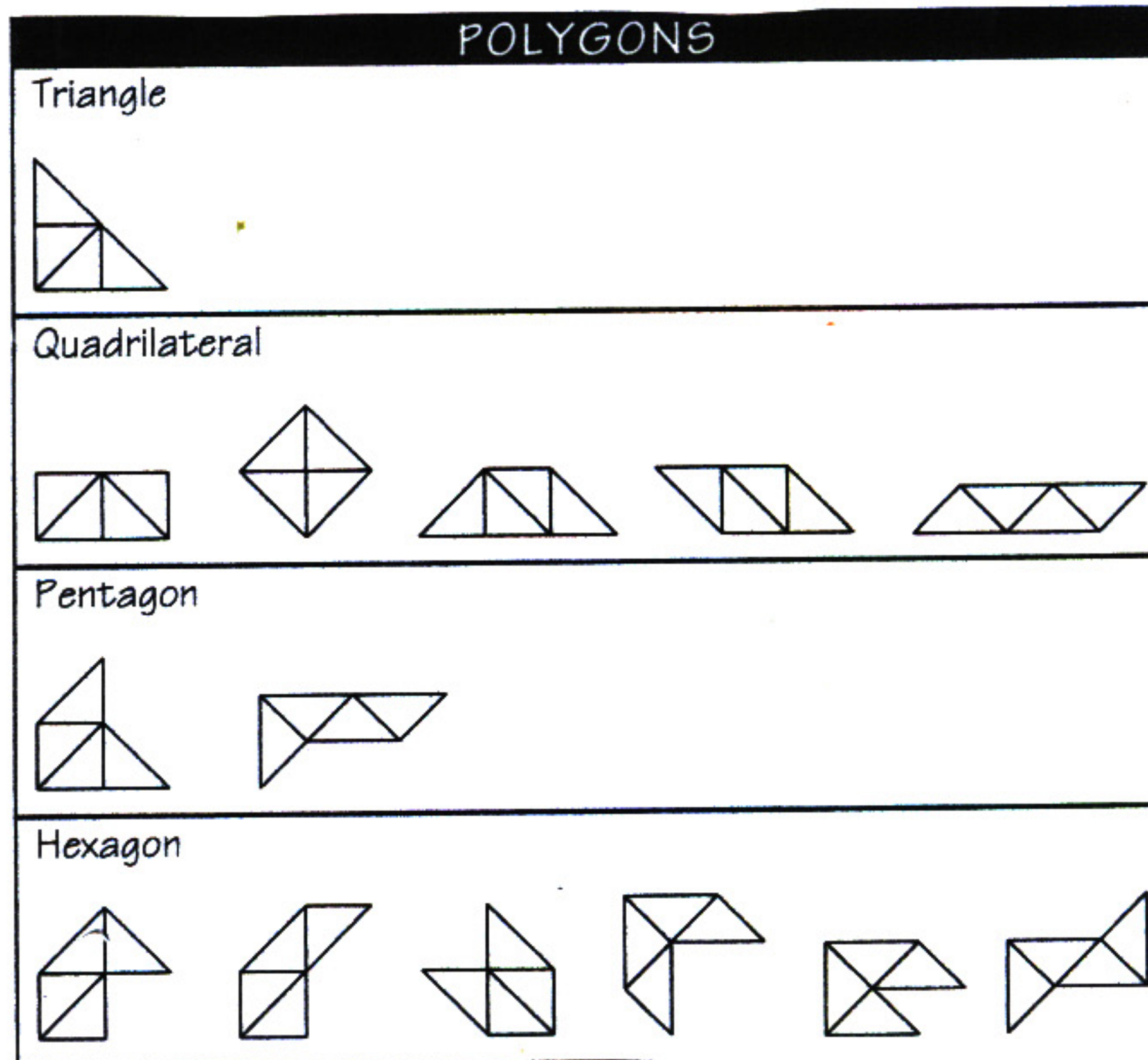
Materials:

Large bulletin board paper, floor or carpet, or empty wall space
tape, labels (Polygons, Triangle, Quadrilateral, Pentagon, Hexagon,
square, rectangle, parallelogram, trapezoid)

Directions:

Divide paper into 4 rows or designate space for 4 rows if using the floor, etc. For this activity, the teacher will sort the shapes by triangles, quadrilaterals, pentagons and hexagons.)

1. Do not label rows.
2. Ask each group to designate someone to bring a shape for the graph.
3. Teacher requests shape from one group at a time. The teacher places the shape in the correct row.
3. Teacher continues to ask representatives to bring a shape that is not on the graph. Teacher places shape on the graph. Shapes that are congruent are the same shape.
4. In table groups, students can make any shape added to the graph if their group didn't find the shape.
5. After 8 or 9 shapes have been placed on the graph, ask students to discuss the attributes of the shapes and determine the rule the teacher is using to place shapes on the graph. Explain. Come to consensus.
6. After labels have been placed on the 4 rows, refer students to the Row, labeled quadrilaterals.



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7. Ask: What are the names for the different quadrilaterals? (rectangle square, parallelogram, trapezoid)
8. Ask students to discuss in groups, the attributes these shapes have in common as well as attributes that are different among the shapes.
9. Ask: Which quadrilaterals can be classified in more than one way? Explain reasoning. (rectangle is a quadrilateral and a parallelogram; square is a rectangle, quadrilateral, parallelogram)
9. Ask: What do all the shapes on the graph have in common? (attributes of polygons) What would be a Title for our graph? (POLYGONS)
- 10 What are other ways the shapes can be sorted? (right angle, without right angles, one line of symmetry, without a line of symmetry)

Labels for Four Triangle Graph

Triangle	Hexagon
Quadrilateral	Pentagon
Polygons	Parallelogram

Rectangle	Trapezoid
Square	