

FAMILY MATH

Attributes of Two-Dimensional Figures

Dear Family,

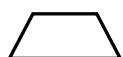
Your student compares, classifies, and draws polygons based on their attributes. In earlier grades, students learned that all quadrilaterals have 4 sides and 4 angles. Now, they are learning that some quadrilaterals have more specific names and attributes, such as sides of equal length, right angles, and parallel sides. Through sorting and describing polygons, your student recognizes that shapes with the same name can look different based on their attributes. Your student also considers how shapes can be formed by placing smaller shapes together.

Key Terms

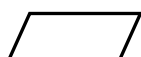
diagonal

regular polygon

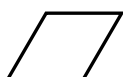
Quadrilaterals



Trapezoid



Parallelogram

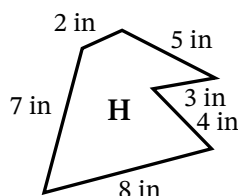
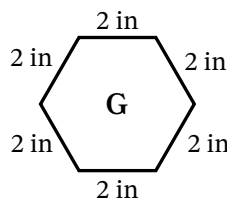
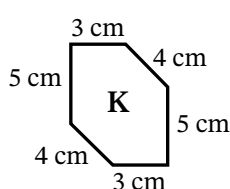


Rhombus

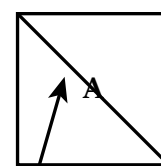


Square

These quadrilaterals have names based on attributes such as opposite sides of equal length, right angles, and pairs of parallel sides.



All three of these shapes have the same name, hexagon, but they look different because of their different attributes. A hexagon is a polygon with 6 sides and 6 angles. A regular hexagon has 6 sides of equal length and 6 angles of equal size.



Diagonal

A diagonal connects two corners in a polygon that are not next to each other. Students draw diagonals to decompose a quadrilateral into two triangles.

At-Home Activities

Snipping a Square

Cut a piece of paper into a square. With your student, take turns folding and cutting the square into smaller geometric shapes. For example, you can fold the square in half along the diagonal and cut along the fold to make two triangles. Have your student fold and cut each triangle into another pair of shapes and identify the new shapes. Try making shapes other than triangles as you cut. See what new figures you and your student can make by arranging the shapes you cut.

Shape Hunt

Take a walk or a drive with your student and look for geometric shapes. Observe the squares, rectangles, triangles, and parallelograms in the architecture of houses and buildings and ask your student questions about them.

- “What polygons do you see?”
- “Do you see shapes with sides of equal length, right angles, or parallel sides?”
- “Do any of the shapes have more than one name?”