

The slide features a dark blue background with decorative geometric patterns on the left and right sides. These patterns consist of overlapping, colorful shapes (triangles and parallelograms) in shades of yellow, magenta, cyan, and grey, arranged in a way that suggests movement or depth. The main title is centered in the upper half of the slide.

Attributes of 2-Dimensional Shapes

Everyday Math 8-1



Attributes

Characteristics used to describe something:

color
shape
size

What attributes could we use to describe our
classmates?

Big Ideas

Shapes have attributes.

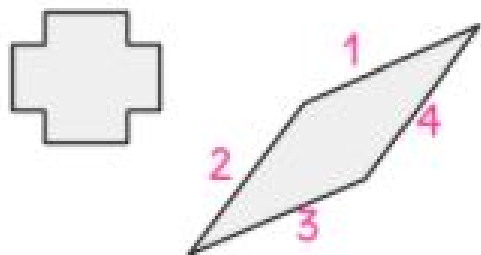
Number of Angles



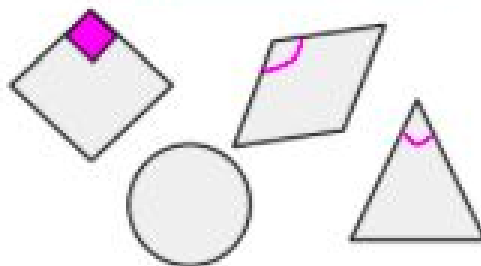
Types of Lines



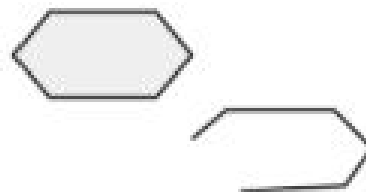
Number of Sides



Types of Angles



Closed or Open



Shape Cards

Look at your Shape Cards

Pick one *shape with 3 sides* and
another with *4 sides*.

Be prepared to *describe the shapes*



Attributes of 3-Sided Shapes

Which Cards have 3 sides?

Describe a 3-sided shape?

What do we call 3-sided shapes?

tri means three



tri - from the Latin and Greek for *three*

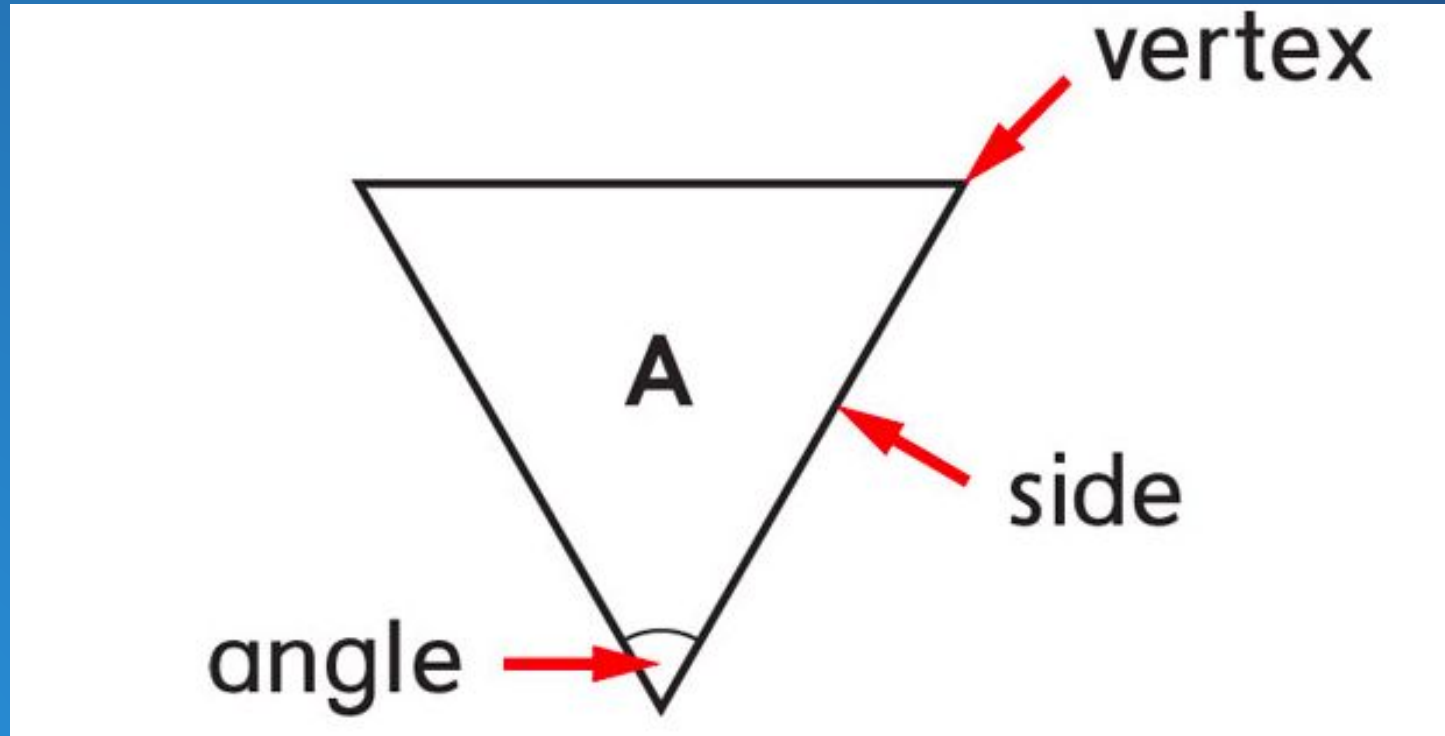
1. **triangle:** geometrical figure with '3' angles
2. **trigonometry:** the mathematical study of figure with '3' angles
3. **trillion:** the number 1000 multiplied by itself another '3' times
4. **triple:** to multiply by '3'
5. **triathlon:** an athletic contest featuring '3' primary events
6. **triceps:** a muscle with '3' heads, or places where it attaches
7. **tricycle:** a bicycle with '3' wheels
8. **trio:** a group of '3' singers
9. **triad:** any group of '3'
10. **trident:** a spear with '3' prongs
11. **trilogy:** a series which consists of '3' books



A triangle is a *polygon* with three sides (edges) and three vertices

The word "polygon" derives from the Greek πολύς (polús) "much", "many" and γωνία (gōnía) "corner", "angle", or γόνυ (gónu) "knee".

Triangle has three sides (edges),
three angles and three vertices



Attributes of 4-sided shapes

Which Shape Cards have 4 sides?
Describe a 4-sided shape.

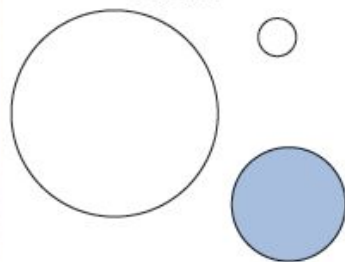
Take a look at Two-Dimensional Shapes
Poster.

Locate the 4-sided shapes.

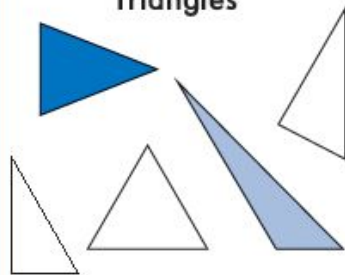


Two-Dimensional Shapes

Circles

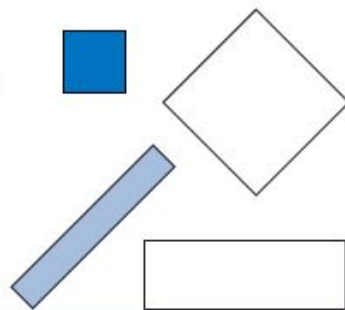


Triangles

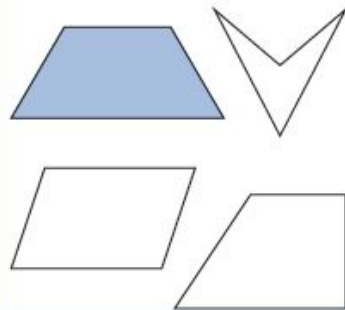


Quadrilaterals

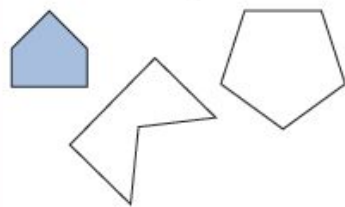
Rectangles and Squares



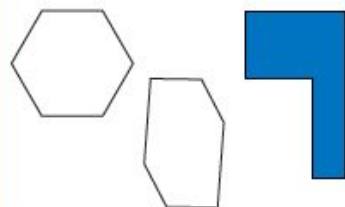
Other Quadrilaterals



Pentagons



Hexagons



All 4-sided shapes are *quadrilaterals*

The origin of the word "quadrilateral" is the two Latin words quadri, a variant of four, and latus, meaning "side"

4-sided polygons (quadrilaterals)

All 4-sided polygons are quadrilaterals

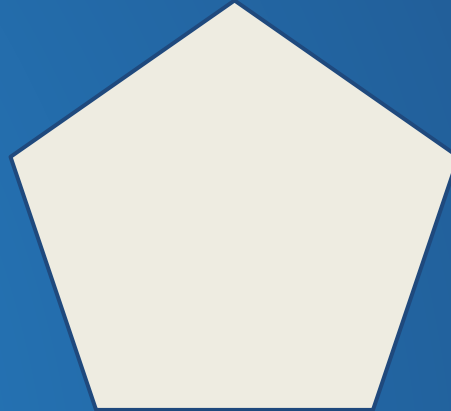
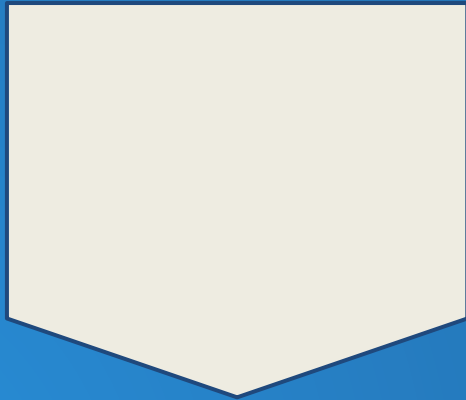
Some quadrilaterals have specific names:

Can you think of some names of 4-sided polygons?

trapezoids, rhombuses, squares, rectangles,
kite

5-Sided Shapes

All 5-Sided Shapes are Pentagons
Penta from the Greek word for five



6-Sided Shapes

All 6-sided shapes are hexagons

A hexagon is a six-sided polygon

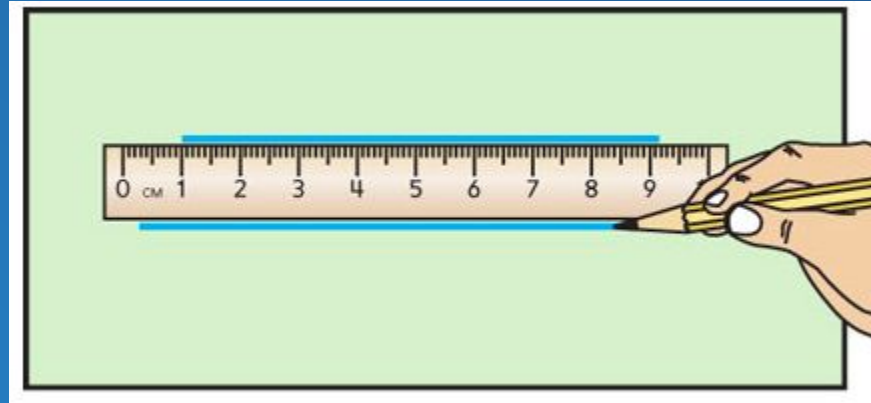
hexa comes from the Greek word for 6



What is the Same About all of the Shapes?

- All of the shapes are made up of straight sides (line segments).
- Any two sides that meet form an angle. All the shapes have angles.
- The point at which two sides of a shape meet is called the vertex.

Parallel Lines



Parallel lines are the same distance apart.

Parallel lines never intersect or cross

Polygon Song

