Name: _____ Date: _____

2D Geometry Vocabulary (Key)

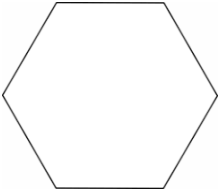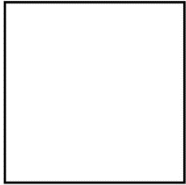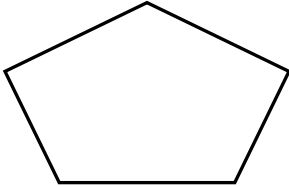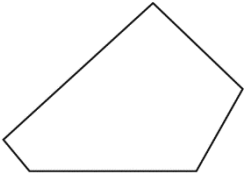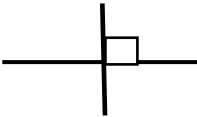| Non-Polygon	**Attributes** - <u>curved sides</u> - <u>open figure</u> - <u>crisscrossing lines</u>	Polygon	**Attributes** - <u>straight sides</u> - <u>closed figure</u> - <u>at least 3 sides, 3 angles</u> - <u>no crossing lines</u>
Example		**Example**	

Regular Polygon	**Attributes** - <u>all sides are congruent</u>	Irregular Polygon	**Attributes** - <u>all sides are **NOT** congruent</u>
Example		**Example**	

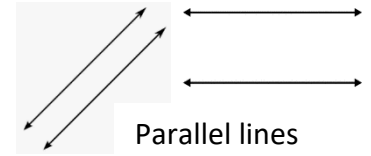**Attributes**: <u>characteristics or properties of a figure</u>

Congruence/congruent: <u>two or more items are the same size/measure.</u>

Perpendicular: <u>intersecting lines that for a right (90° degree) angle</u>
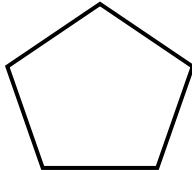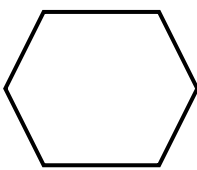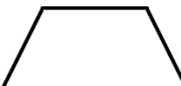
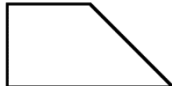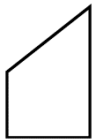| Perpendicular Examples |
|:---:|
| |

Parallel Lines: <u>lines that are equal distance apart which never intersect</u>.

Plane figure: <u>flat two-dimensional figures</u>

Parallel lines

Two-dimensional: <u>a flat shape with a length and a width</u>

Additional Polygons	
Pentagon	**Hexagon**
5-sided polygon	**6-sided polygon**

Trapezoids
A quadrilateral with at **LEAST** one set of parallel lines

Additional Polygons:

Heptagon: 7-sided polygon   **Octagon:** 8-sided polygon   **Nonagon:** 9-sided polygon
Decagon: 10-sided polygon
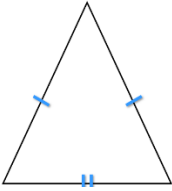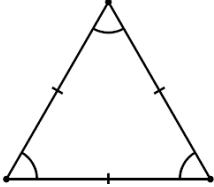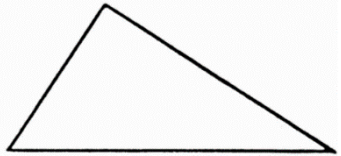
Angles: <u>two rays with a common endpoint (vertex)</u>		
Right angle	**Acute Angle**	**Obtuse Angle**
90°		
Exactly 90⁰	Less than 90⁰	More than 90⁰ but less than 180⁰
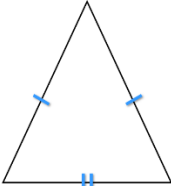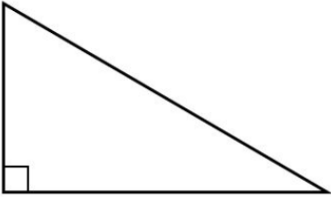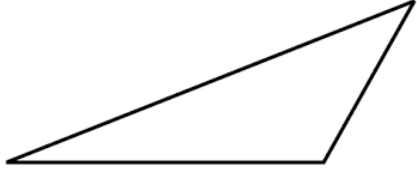
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Vertex: <u>a point where two sides (rays) meet</u>

vertex
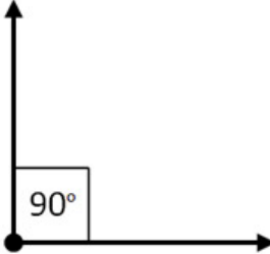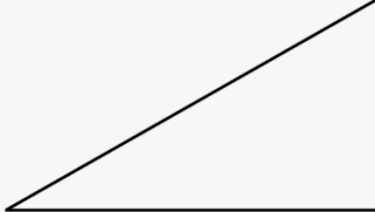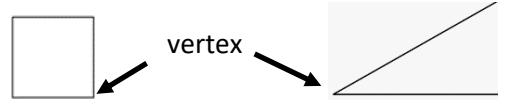
We can classify triangles 2 different ways, using angles or by sides

Triangle: <u>3-sided polygon</u>		
Classifying triangles by sides		
Isosceles Triangle	**Equilateral Triangle**	**Scalene Triangle**
2 congruent sides	All 3 sides are congruent	No congruent sides

Triangle: <u>3-sided polygon</u>		
Classifying triangles by angles		
Acute Triangle	**Right Triangle**	**Obtuse Triangle**
3 acute angles	One right (90°) angle	One obtuse angle
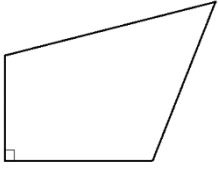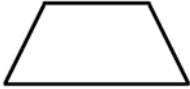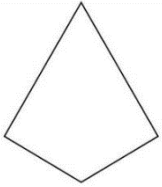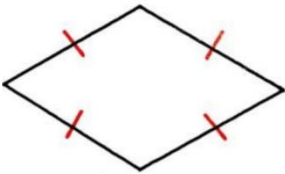
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Hierarchy of Shapes
triangles with reference to angles

Polygons
shapes with 3 or more sides and 3 or more angles

Triangles
shapes with 3 sides and 3 angles

scalene
- ___0___ congruent sides

isosceles
- 2 congruent sides

equilateral
- ___3___ congruent sides

acute
all angles measure < 90°

right
one angle measures 90°

obtuse
one angle measures > 180°

acute
all angles measure < 90°

right
one angle measures 180°

obtuse
one angle measures > 90°

acute
all angles are acute and measure 60°

Name: _____ Date: _____

Quadrilaterals

	Example	Attributes
Quadrilateral		• shapes with 4 sides and 4 angles
Trapezoid		• quadrilateral with at least 1 set of parallel sides
Parallelogram		• two sets of parallel sides • two sets of congruent sides • two sets of congruent angles
Kite		• two sets of congruent sides • at least one set of congruent angles
Rectangle		• four right angles • two sets of congruent sides • two sets of parallel sides
Rhombus		• 4 congruent sides • 2 sets of parallel sides • 2 sets of congruent angles
Square		• four right angles • four congruent sides • two sets of parallel sides

Hierarchy of Shapes
Quadrilaterals w/reference to sides and angles

Polygons
shapes with 3 or more sides and 3 or more angles

Quadrilaterals
shapes with 4 sides and 4 angles

trapezoid
- at least 1 set of parallel sides

Kite
- 2 sets of congruent sides
- at least 2 congruent angles

parallelograms
- 2 sets of congruent sides
- 2 sets of parallel sides
- 2 sets of congruent angles

rectangles
- 2 sets of parallel sides
- 2 sets of congruent sides
- all right / 90° angles

Rhombus (rhombi)
- 2 sets of parallel sides
- All sides congruent
- 2 sets of congruent angles

Which shape has all attributes?

square
- 2 sets of parallel sides
- all right angles
- all congruent sides