

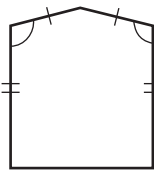
Name _____

Polygons

A **polygon** is a closed plane figure formed by three or more line segments that meet at points called vertices. You can classify a polygon by the number of sides and the number of angles that it has.

Congruent figures have the same size and shape. In a **regular polygon**, all sides are congruent and all angles are congruent.

Classify the polygon below.



Polygon	Sides	Angles	Vertices
Triangle	3	3	3
Quadrilateral	4	4	4
Pentagon	5	5	5
Hexagon	6	6	6
Heptagon	7	7	7
Octagon	8	8	8
Nonagon	9	9	9
Decagon	10	10	10

How many sides does this polygon have? 5 sides

How many angles does this polygon have? 5 angles

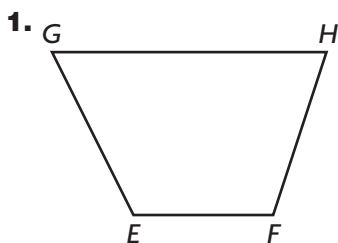
Name the polygon. pentagon

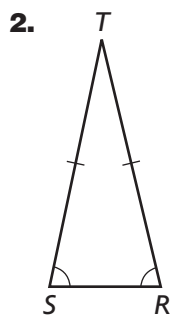
Are all the sides congruent? no

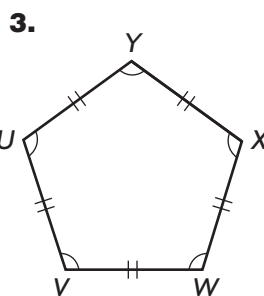
Are all the angles congruent? no

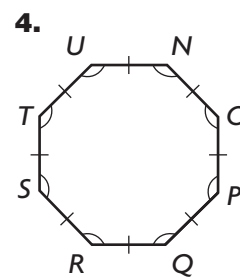
So, the polygon above is a pentagon. It is *not* a regular polygon.

Name each polygon. Then tell whether it is a *regular polygon* or *not a regular polygon*.









Name _____

Triangles

You can classify triangles by the length of their sides and by the measure of their angles. **Classify each triangle.**

Use a ruler to measure the side lengths.

- **equilateral triangle**

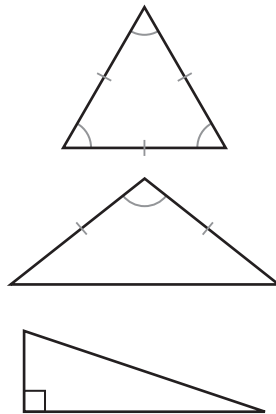
All sides are the same length.

- **isosceles triangle**

Two sides are the same length.

- **scalene triangle**

All sides are different lengths.



Use the corner of a sheet of paper to classify the angles.

- **acute triangle**

All three angles are acute.

- **obtuse triangle**

One angle is obtuse. The other two angles are acute.

- **right triangle**

One angle is right. The other two angles are acute.

Classify the triangle according to its side lengths.

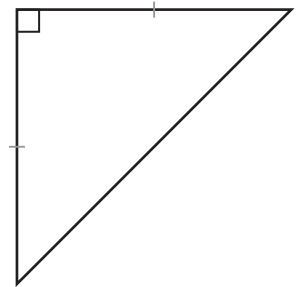
It has two congruent sides.

The triangle is an isosceles triangle.

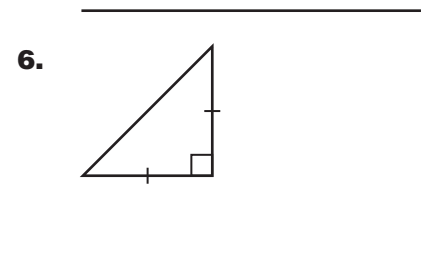
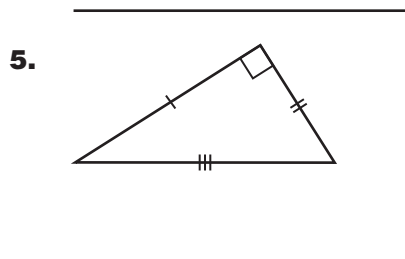
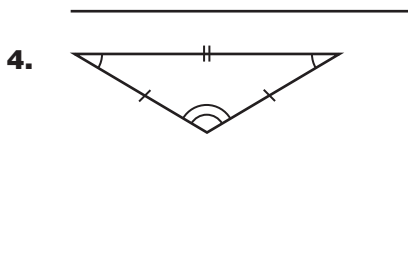
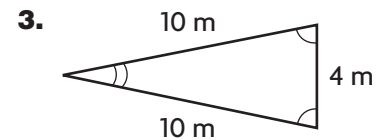
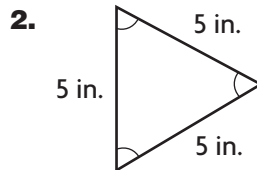
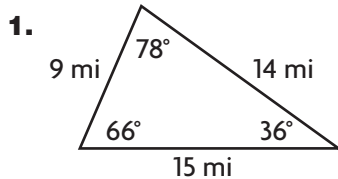
Classify the triangle according to its angle measures.

It has one right angle.

The triangle is a right triangle.



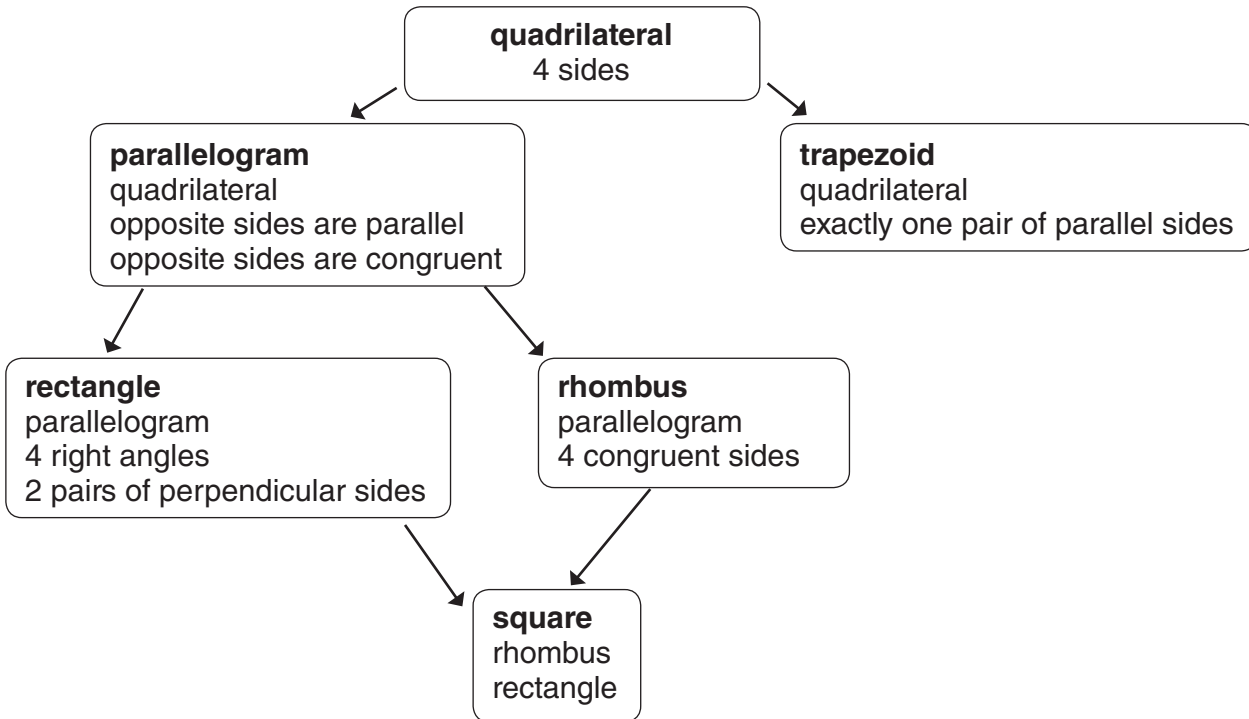
Classify each triangle. Write *isosceles*, *scalene*, or *equilateral*. Then write *acute*, *obtuse*, or *right*.



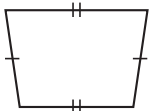
Name _____

Quadrilaterals

You can use this chart to help you classify quadrilaterals.



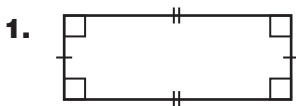
Classify the figure.

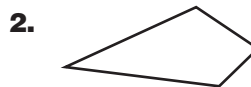


The figure has 4 sides, so it is a *quadrilateral*. The figure has exactly one pair of parallel sides, so it is a *trapezoid*.

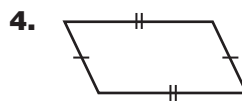
quadrilateral, trapezoid

Classify the quadrilateral in as many ways as possible. Write *quadrilateral*, *parallelogram*, *rectangle*, *rhombus*, *square*, or *trapezoid*.









Name _____

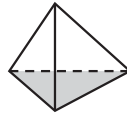
Three-Dimensional Figures

A **polyhedron** is a solid figure with faces that are polygons. You can identify a polyhedron by the shape of its faces.

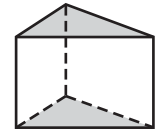
A **pyramid** is a polyhedron with one polygon base. The lateral faces of a pyramid are triangles that meet at a common vertex.

A **prism** is a polyhedron with two congruent polygons as bases. The lateral faces of a prism are rectangles.

triangular pyramid The base and faces are triangles.



triangular prism The two bases are triangles.



rectangular pyramid The base is a rectangle.



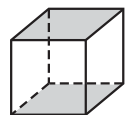
rectangular prism All faces are rectangles.



square pyramid The base is a square.



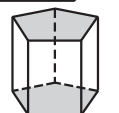
square prism or cube All faces are squares.



pentagonal pyramid The base is a pentagon.



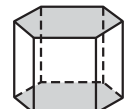
pentagonal prism The two bases are pentagons.



hexagonal pyramid The base is a hexagon.



hexagonal prism The two bases are hexagons.



A solid figure with curved surfaces is **not a polyhedron**.

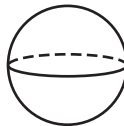
cone The one base is a circle.



cylinder The two bases are circles.



sphere There is no base.

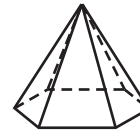


Classify the solid figure. Write *prism, pyramid, cone, cylinder, or sphere*.

The solid figure has one base.

The rest of its faces are triangles.

So, the solid figure is a pyramid.



Classify each solid figure. Write *prism, pyramid, cone, cylinder, or sphere*.

