Geometry Vocabulary
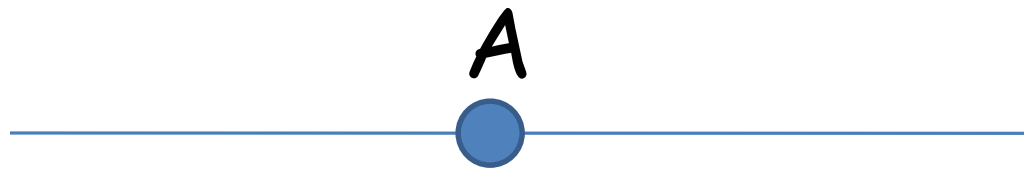
point

An exact location in space, usually represented by a dot.

Example:

A

This is point A.

line

A straight path in a plane that goes on forever in opposite directions.

Example:

A   B

This is line AB or BA.

line segment

A part of a line that includes two points, called endpoints, and all of the points between them.

Example:

A   B

This is line segment AB or BA.

ray

A part of a line, with one endpoint, that continues without end in one direction.

Example:

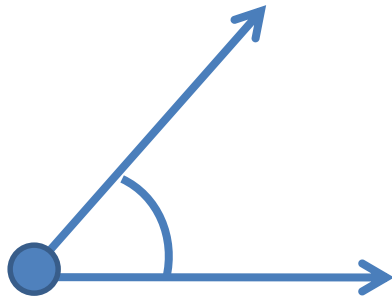C   D

This is ray CD. It is <u>NOT</u> ray DC.
You must name the point first.

angle

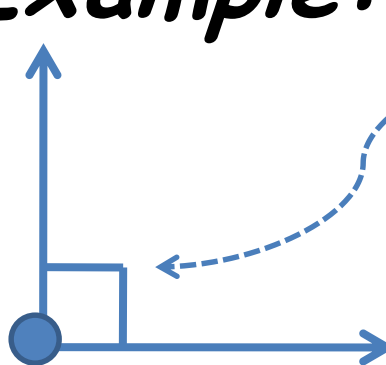A figure formed by two rays that have a common endpoint.

Example:

right angle

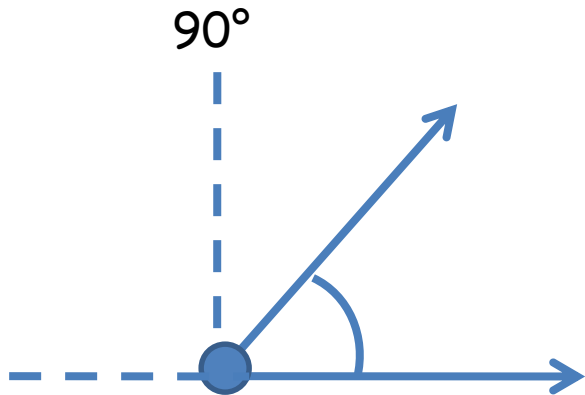An angle formed by perpendicular lines, line segments, or rays and with a measure of 90°
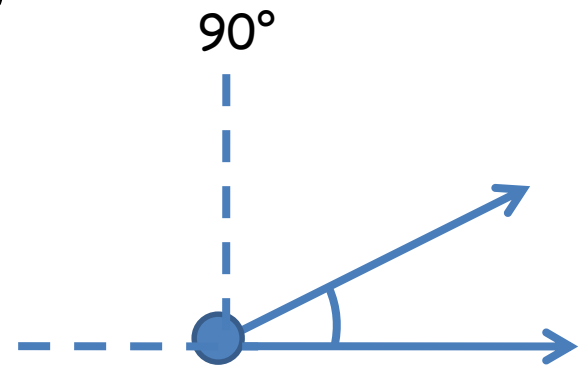
Example:

This is a symbol that means 90°.

acute angle

An angle that has a measure less than a right angle (less than 90°) .
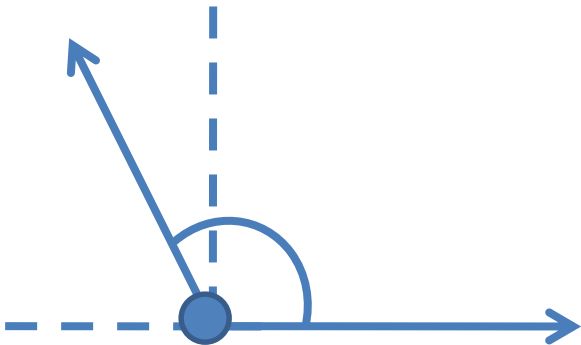
Examples:

90°

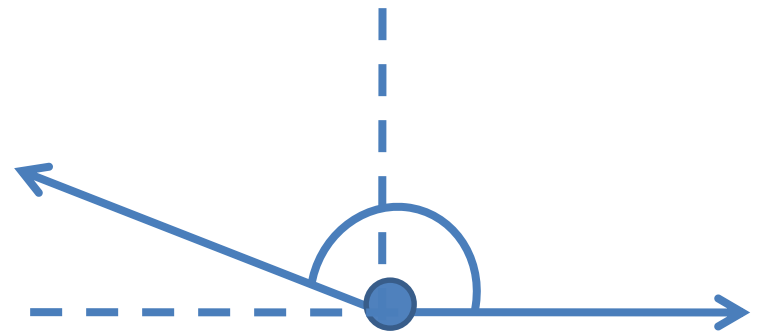These are both examples of acute angles.

90°

obtuse angle

An angle whose measure is greater than 90° and less than 180°.
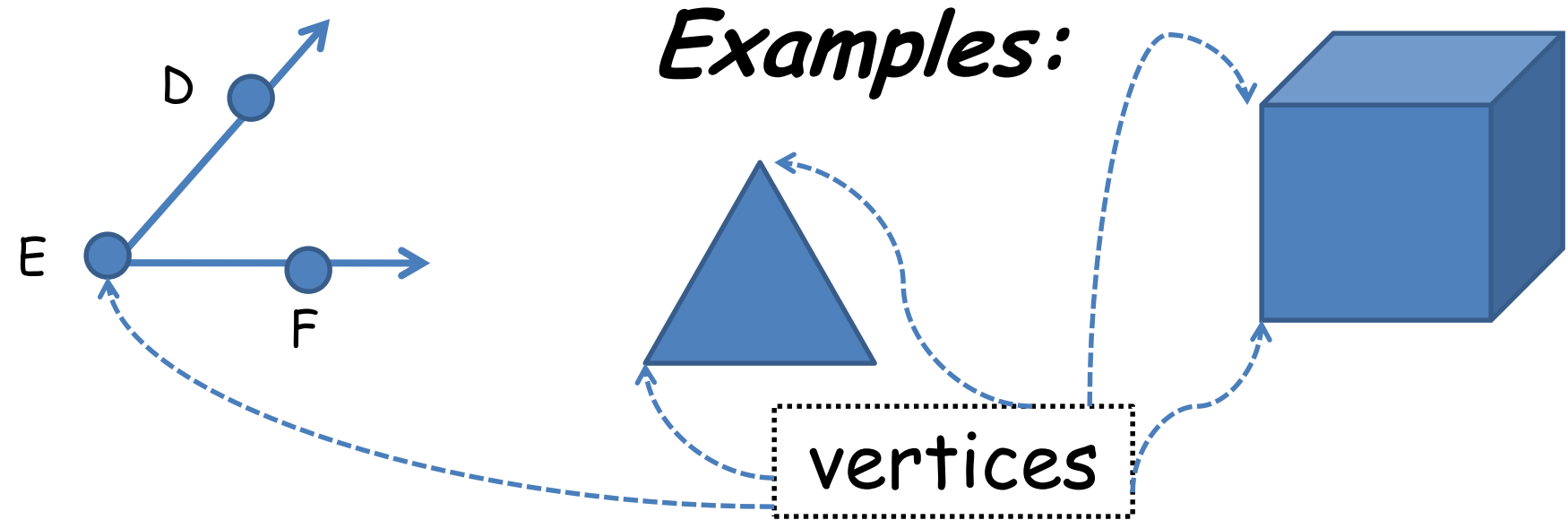
Examples:

These are both examples of obtuse angles.

vertex

The point where rays meet; the point of intersection of any two or more side or edges; the plural is vertices

Examples:

D

E

F

vertices

parallel line

Lines in a plane that never intersect.

Example:

E   F

G   H

This is a symbol that means parallel.

EF is parallel to GH.   *Or*   EF || GH

perpendicular lines

Two lines that intersect to form four right angles.

E

G   H

F

Example:
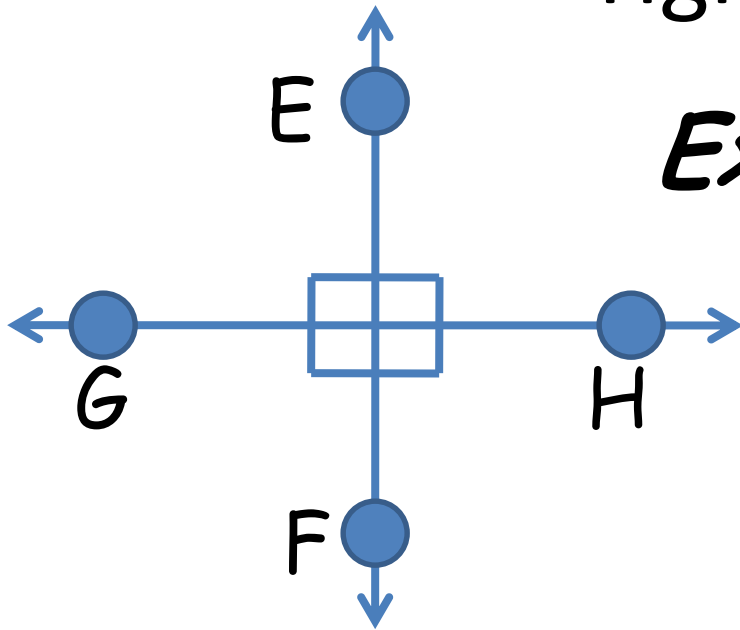
This is a symbol that means perpendicular.

EF is perpendicular to GH. *Or* EF⊥GH

intersecting lines

Lines that cross at exactly one point.
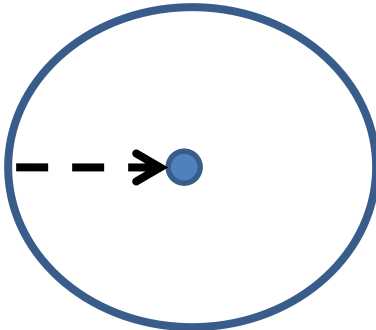
I
Example:
L

K

J
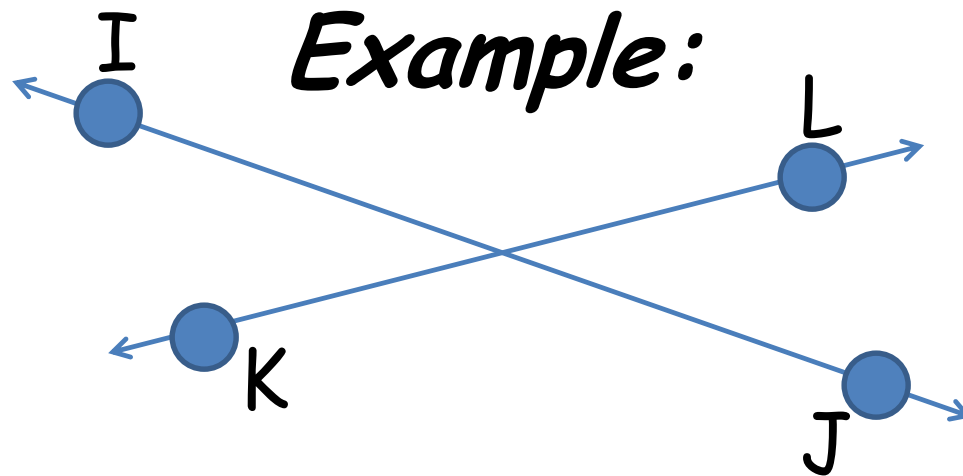
Line IJ intersects line KL.

circle

A closed plane figure with all points on the figure the same distance from the center.

Example:
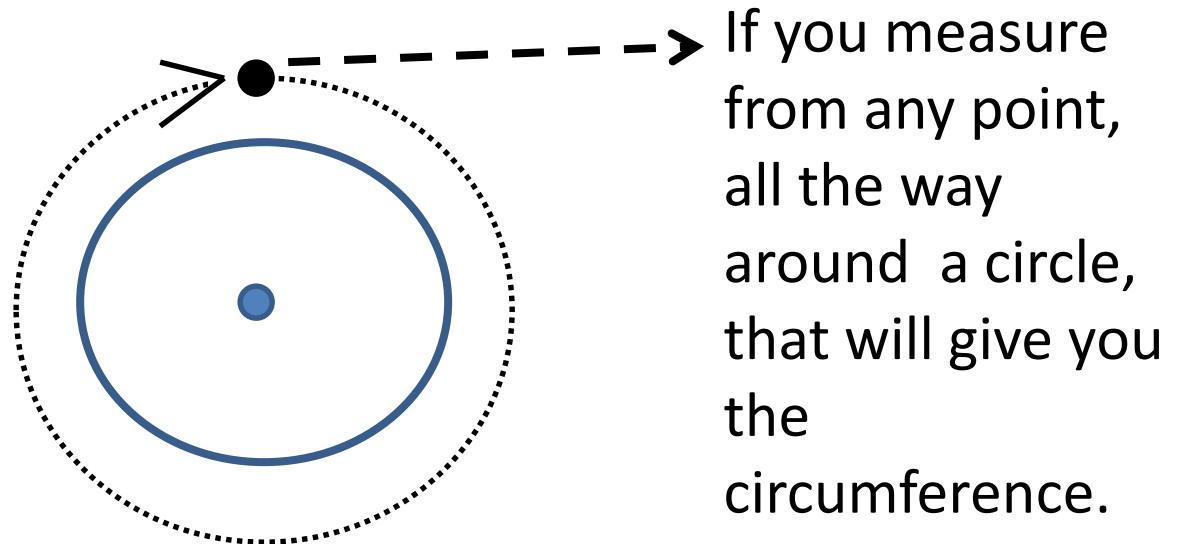
This is the
center – center
means "exact
middle."

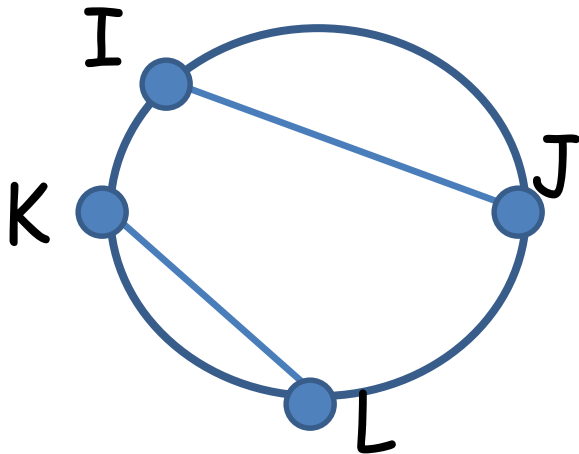# circumference

The distance around a circle.

Example:

If you measure from any point, all the way around a circle, that will give you the circumference.

chord

A line segment with its endpoints on a circle.

Examples:
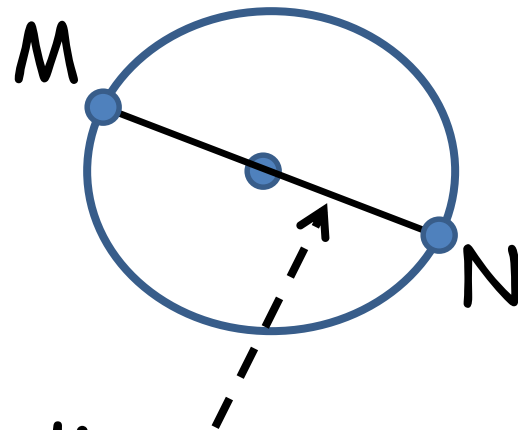

Line segments IJ and KL are both chords.

diameter

A line segment that passes <u>through the center</u> of a circle and has its endpoints <u>on the circle</u>.
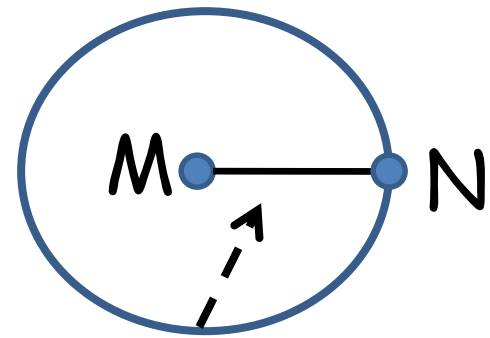
Example:

Line segment MN is the <u>diameter</u>.

radius

A line segment with one endpoint at the <u>center</u> of a circle and the other endpoint <u>on the circle</u>.
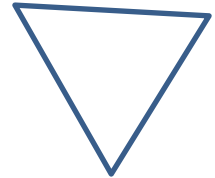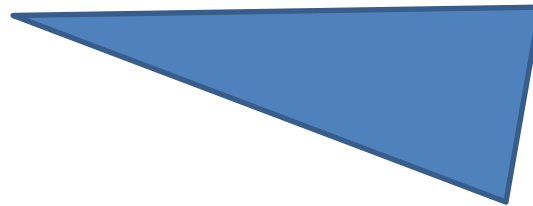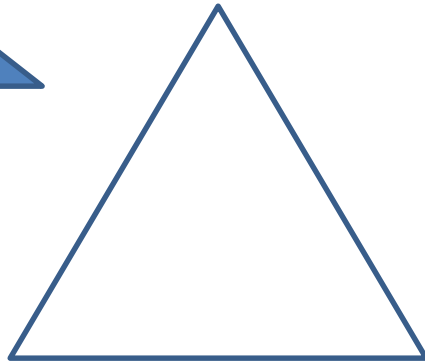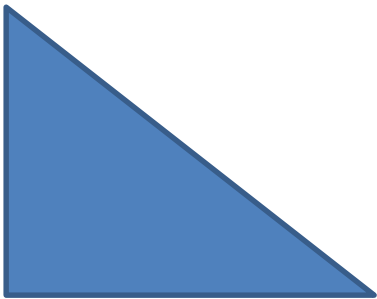
Example:

Line segment MN is the <u>radius</u>.

triangle

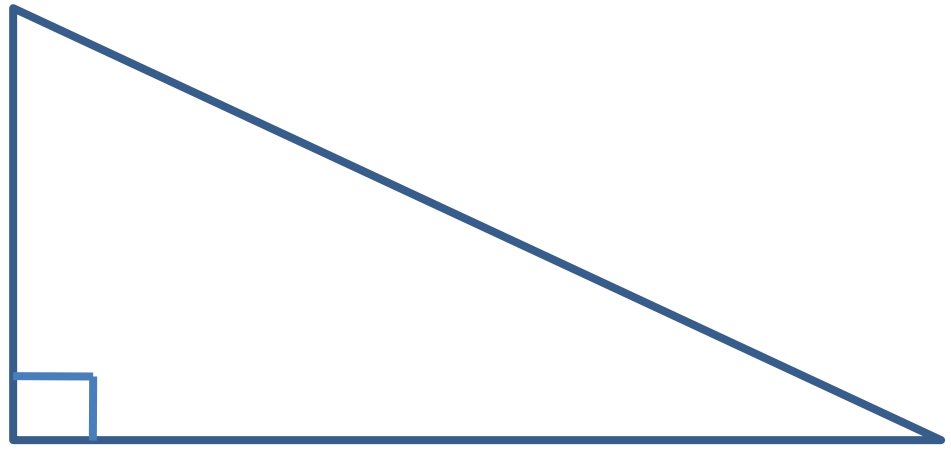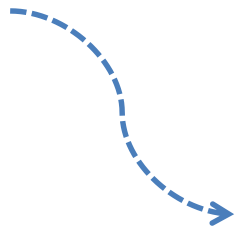A polygon with three sides.

Examples:

right triangle

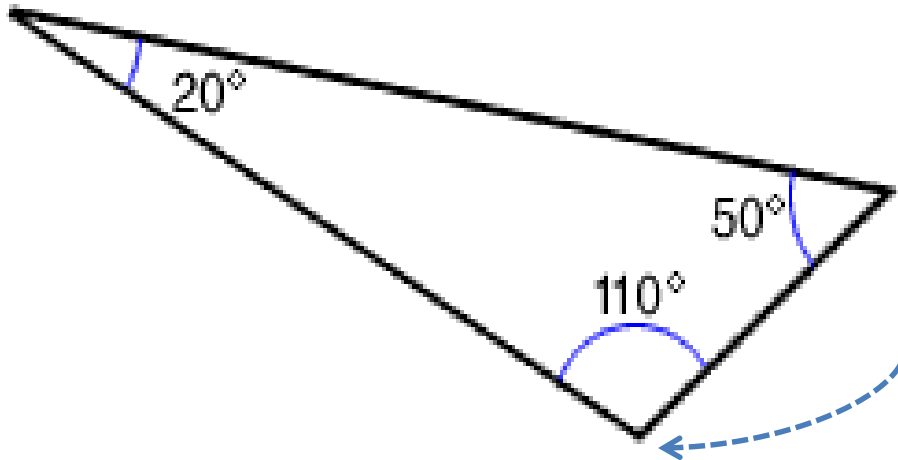A triangle with one right angle (90°).

Example:

Note that this triangle has a 90° angle marked with the symbol.

obtuse triangle

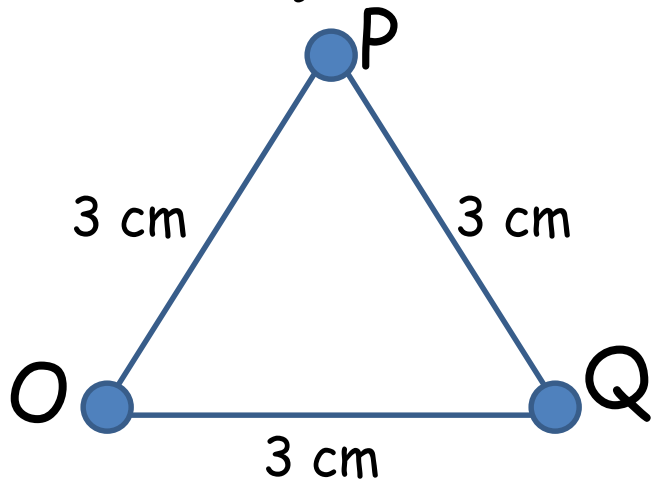A triangle that has one obtuse angle – which means an angle greater than 90°.

Example:

Note that this angle is 110° - which is greater than 90 °. So, this is the obtuse angle that makes this an obtuse triangle.

20°

50°

110°

equilateral triangle

A triangle with **_three_** congruent sides.

Example:
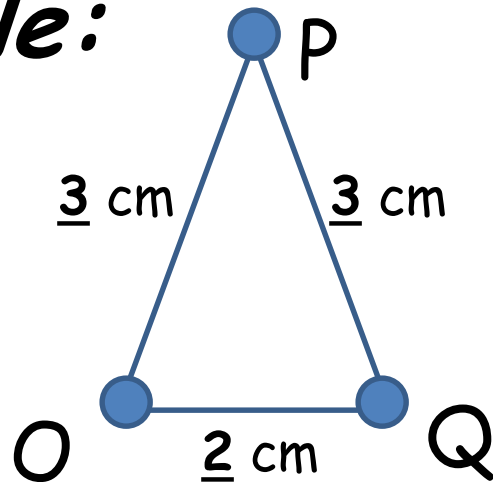

The word congruent means equal or the same. The sides of this triangle all measure 3 cm each.

Line segments OP, PQ, and QO are congruent.

isosceles triangle

A triangle with **_two_** congruent sides.

Example:

P

3 cm   3 cm

O   2 cm   Q

The word congruent means equal or the same. Only **_two_** sides of this triangle measure 3 cm, the other side measures 2 cm.
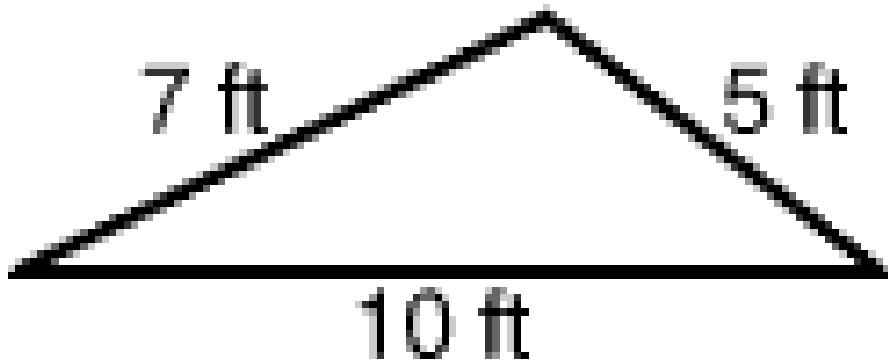
Line segments OP and PQ are both **3** cm = congruent.

Line segment OQ is smaller at **2** cm.

scalene triangle

A triangle with <u>NO congruent</u> sides.
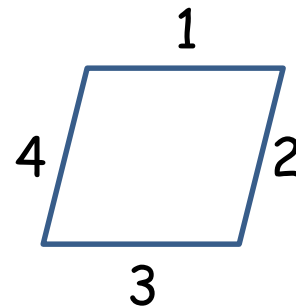
Example:
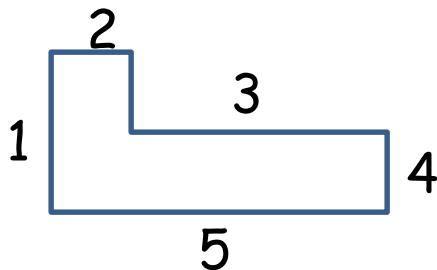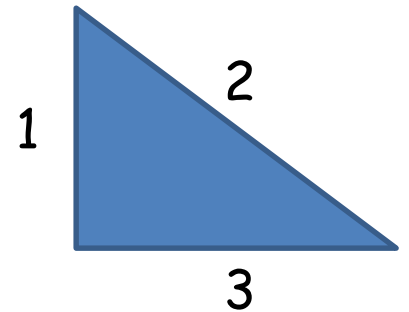
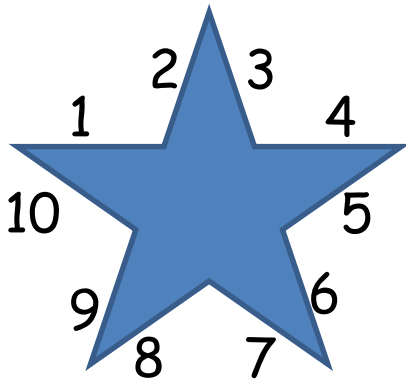7 ft

5 ft

10 ft

Note that each side of this triangle is a <u>different</u> length. If any sides are the same, it is <u>not scalene</u>.

polygon

A closed plane figure formed by three or more line segments.
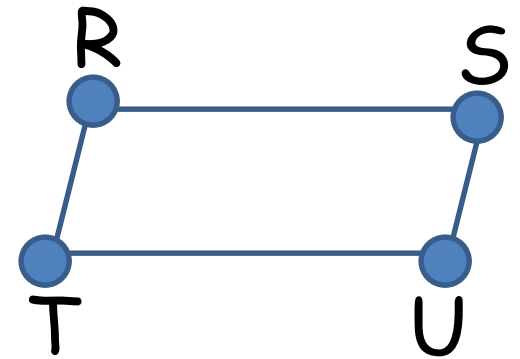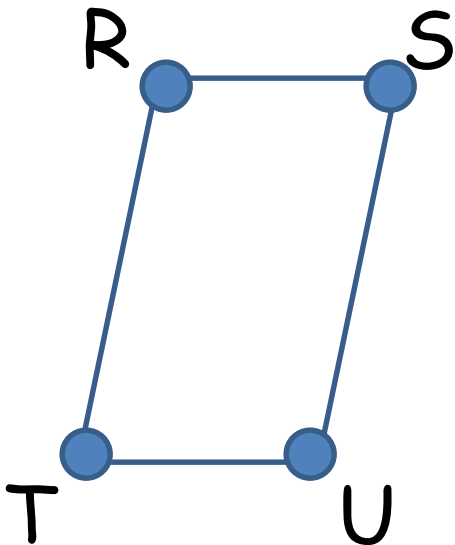
Examples:

parallelogram

A quadrilateral whose opposite sides are parallel and congruent.
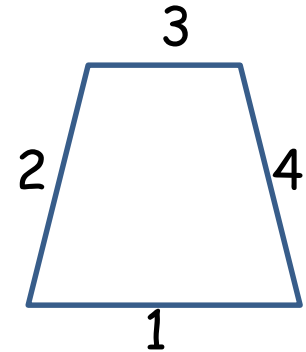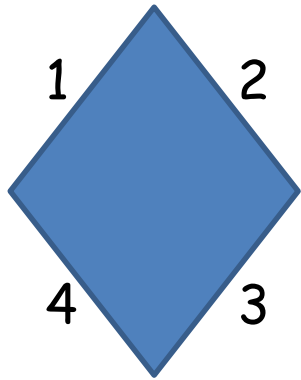
Examples:

R S

Note that on both shapes, line segments RS and TU are congruent, or equal. Line segments RT and SU are also congruent. That makes both of these shapes <u>parallelograms</u>.

T U

R S

T U

quadrilateral

A polygon with <u>four</u> sides

Examples:

Shape 1 (diamond/rhombus): 1, 2, 3, 4

Shape 2 (parallelogram/slanted): 1, 2, 3, 4

Shape 3 (trapezoid): 1, 2, 3, 4
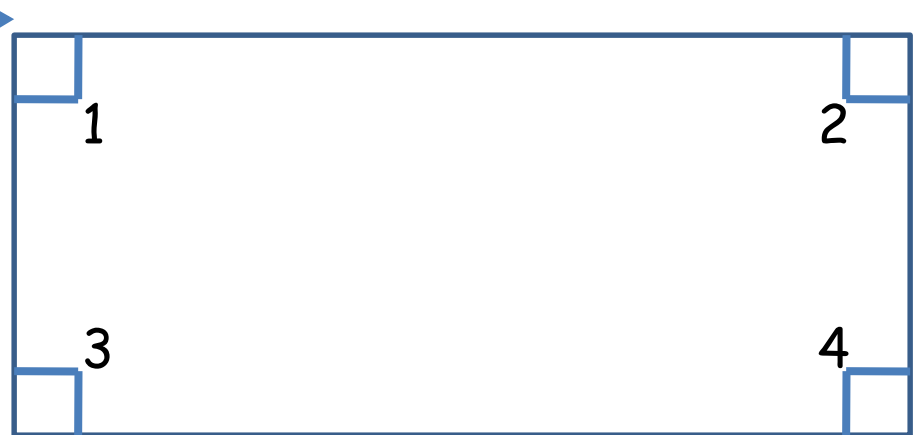
Shape 4 (parallelogram): 1, 2, 3, 4
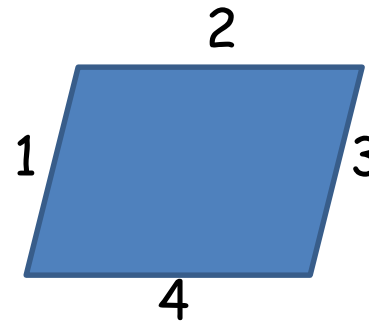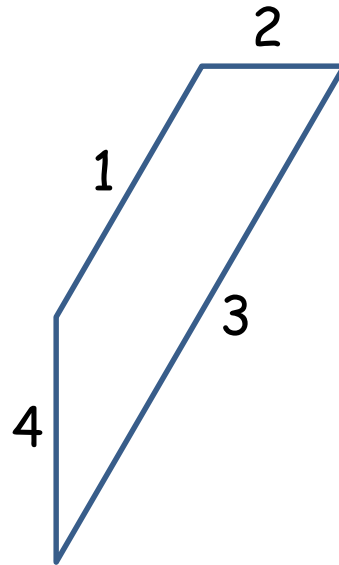
rectangle

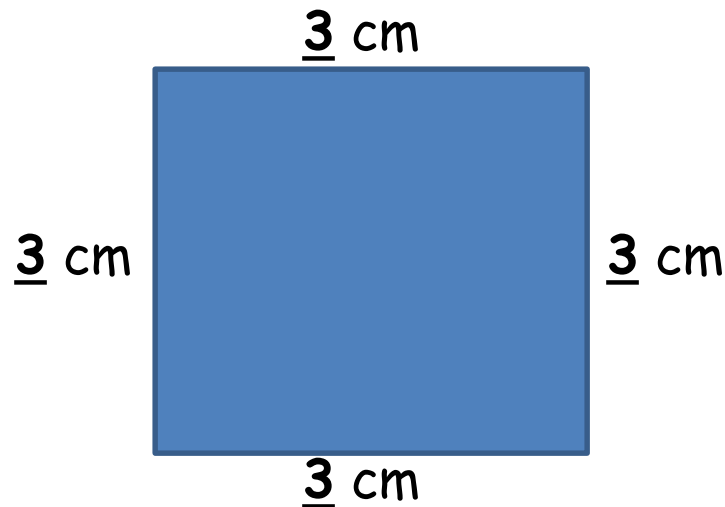A parallelogram with <u>four right angles</u>.

Example:

Note that each vertex has a 90° angle marked with the ⌐ symbol. Because there are four, we know this is a rectangle.
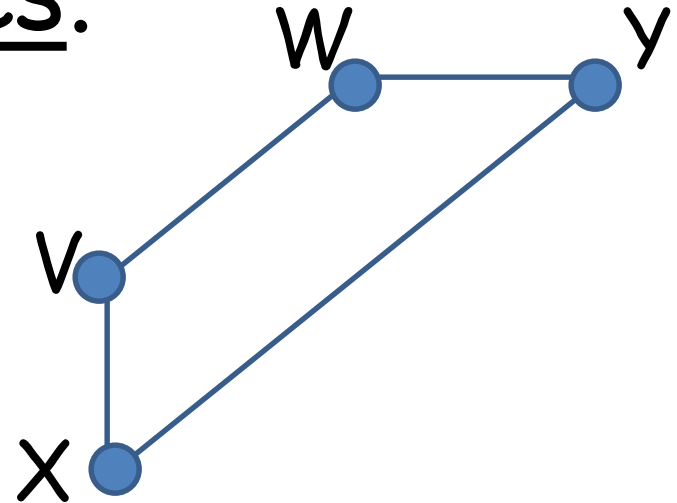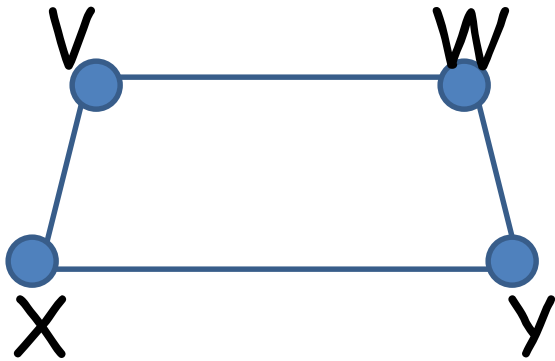
square

A rectangle with <u>four equal sides</u>.

Example:

<u>3</u> cm

<u>3</u> cm   <u>3</u> cm

<u>3</u> cm

trapezoid

A quadrilateral with <u>one pair</u> of <u>parallel sides</u>.
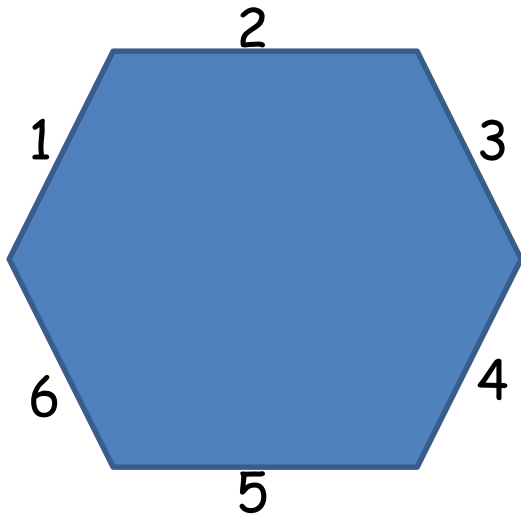
Examples:

Line segments VW and XY are parallel on both quadrilaterals, so we know that they are trapezoids.

hexagon

A polygon with <u>six sides</u> and <u>six angles</u>.

Examples:

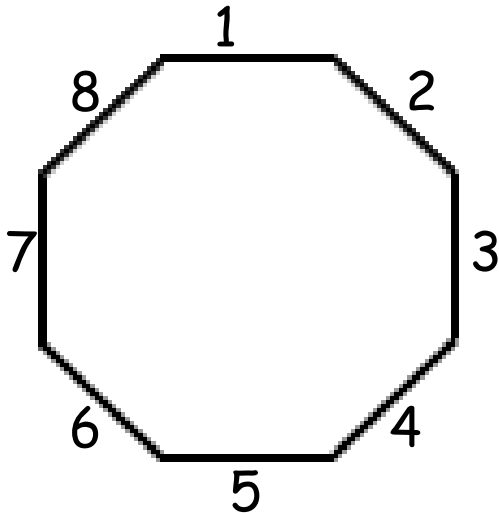

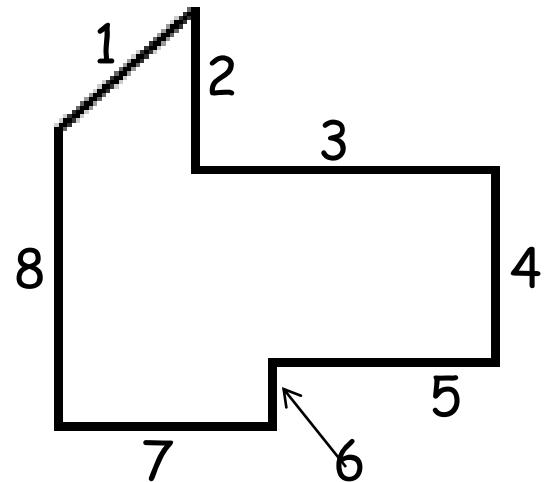Note that there are six sides and there are also six angles. That proves that this quadrilateral is a <u>hexagon</u>.

octagon

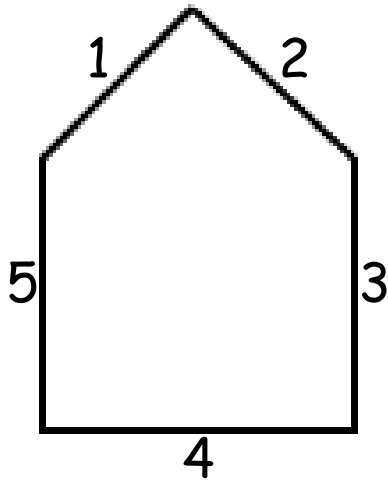A polygon with <u>eight sides</u>.

Example:

Note that even though these shapes may look different, they both have 8 sides. So, we know that they are <u>octagons</u>.
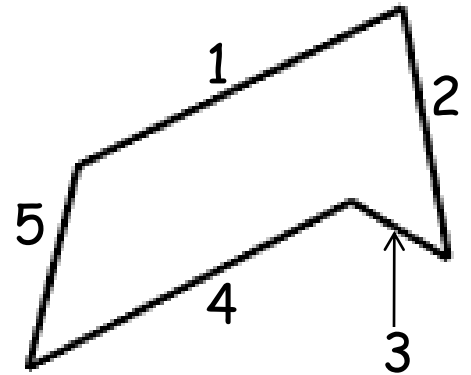
pentagon

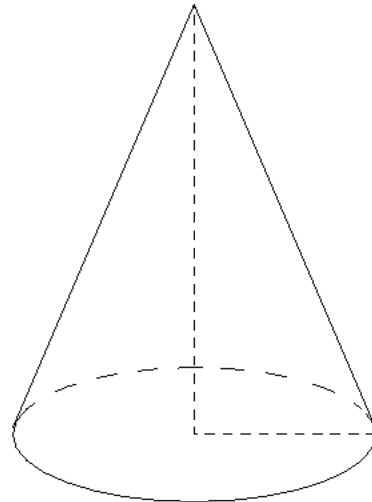A polygon with <u>five sides</u>.

Example:

Note that even though these shapes may look different, they both have 5 sides. So, we know that they are <u>pentagons</u>.

cone

A cone is a shape that has a point at one end and is circular at the other end.

Example:

crescent

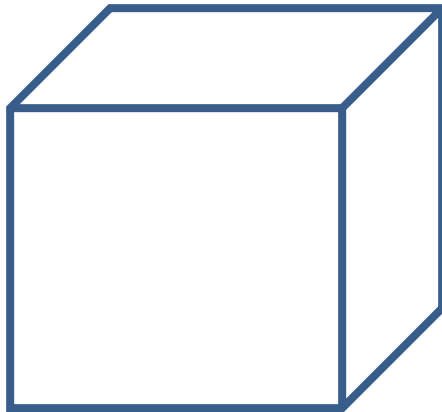A shape that resembles a moon.
It is similar to a half-circle.

Example:

cube

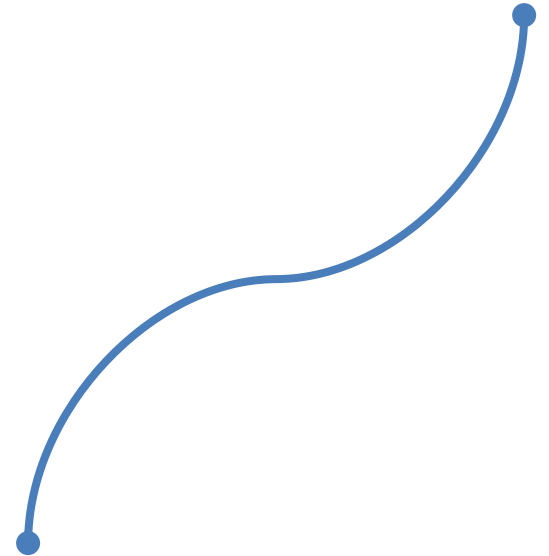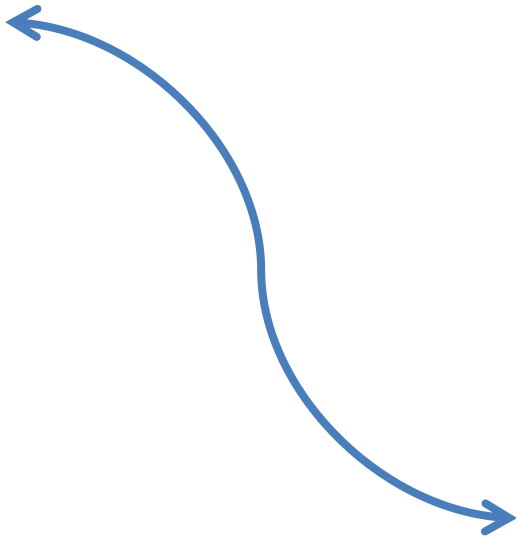A three dimensional solid figure with 6 faces.

Example:

curve

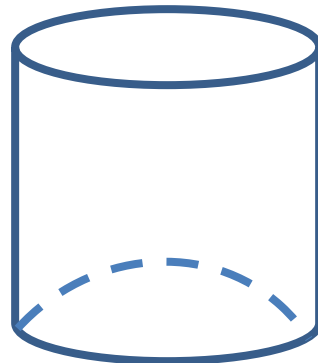A wavy live or surface that changes direction.

Example:

Note that even though one is a curved line and one is a curved segment, these are both <u>curves</u>.

cylinder

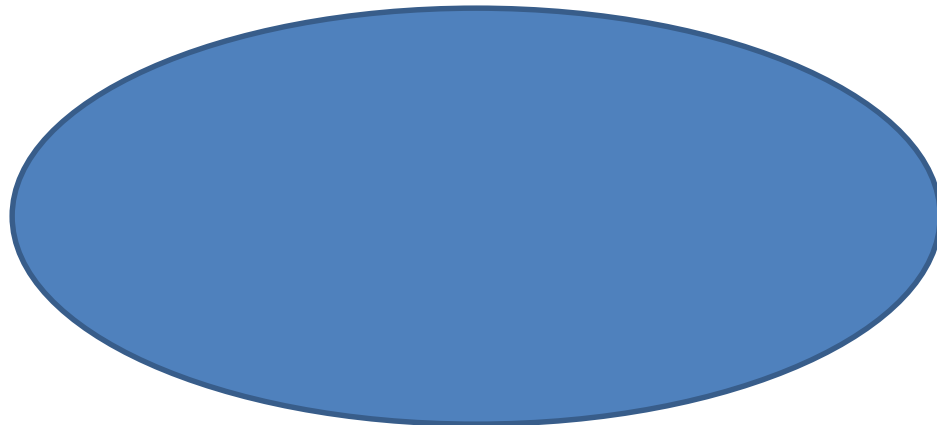A three dimensional solid figure with two circular ends and one face connecting them.

Example:

ellipse

A flattened circle.

Example:

crescent

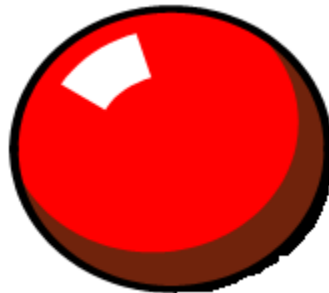An exact location in space, usually represented by a dot.

Example:

sphere

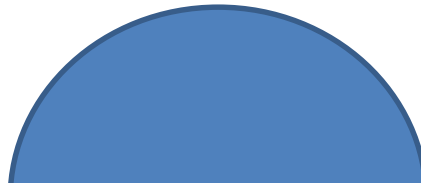A three dimensional solid figure much like a circle. It has no ends and no points. A ball is an example.

Example:

semicircle

A shapes that resembles a half circle.

Example:

spiral

A curve that winds around itself.

Example:

zigzag

A line that turns back and forth sharply.

Example: