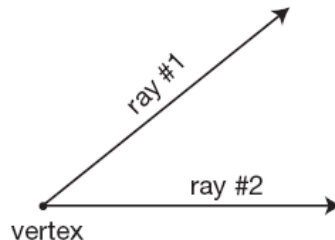


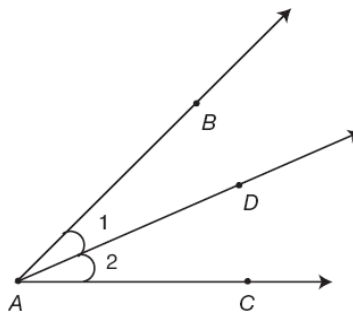
# Angles

An **angle** is formed by two rays and an endpoint or line segments that meet at a point, called the **vertex**.



## Naming Angles

There are three ways to name an angle.



1. An angle can be named by the vertex when no other angles share the same vertex:  $\angle A$ .
2. An angle can be represented by a number or variable written across from the vertex:  $\angle 1$  and  $\angle 2$ .
3. When more than one angle has the same vertex, three letters are used, with the vertex always being the middle letter:  $\angle 1$  can be written as  $\angle BAD$  or  $\angle DAB$ , and  $\angle 2$  can be written as  $\angle DAC$  or  $\angle CAD$ .

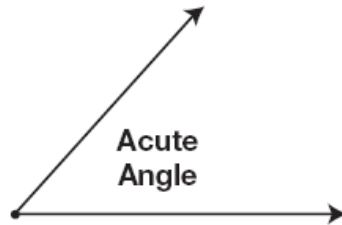
## The Measure of an Angle

The notation  $m\angle A$  is used when referring to the measure of an angle (in this case,  $\angle A$ ). For example, if  $\angle D$  measures  $100^\circ$ , then  $m\angle D = 100^\circ$ .

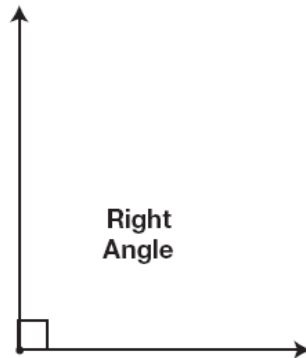
### Classifying Angles

Angles are classified into four categories: acute, right, obtuse, and straight.

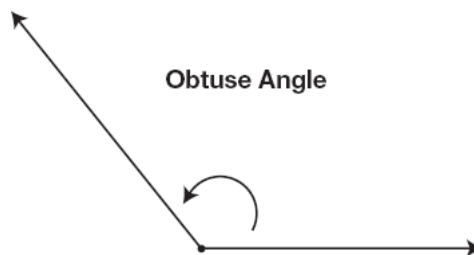
An acute angle measures less than  $90^\circ$ .



A right angle measures exactly  $90^\circ$ . A right angle is symbolized by a square at the vertex.



An obtuse angle measures more than  $90^\circ$  but less than  $180^\circ$ .



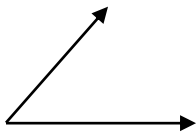
A straight angle measures exactly  $180^\circ$ . A straight angle forms a line.



**Examples:**

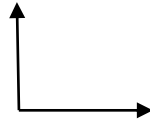
**A- Identify the angles: acute, obtuse, straight, or right.**

1)



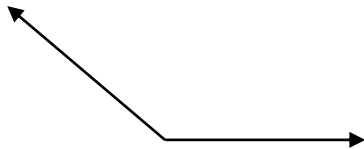
acute

2)



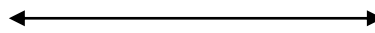
right

3)



obtuse

4)



straight