

1.4 Measure and Classify Angles

Vocabulary

Ray: has \_\_\_\_\_ endpoint and \_\_\_\_\_ infinitely in \_\_\_\_\_ direction.

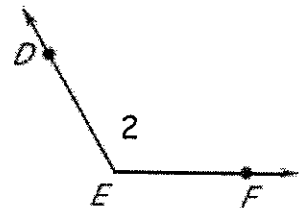
Always label with \_\_\_\_\_ first!!!

Opposite Rays

Angle: a figure formed by 2 noncollinear rays with a common endpoint.

Sides

Vertex



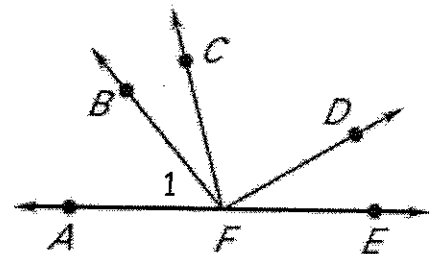
Labeled 3 ways:

- a) 3 letters (vertex is always in the \_\_\_\_\_)
- b) 1 letter (only if \_\_\_\_\_).
- c) 1 number

$\angle CFD$  and  $\angle$  \_\_\_\_\_ are the same angle.

Can you say  $\angle BFA$  is the same as  $\angle F$ ?

Can you say  $\angle BFA$  is the same as  $\angle 1$ ?



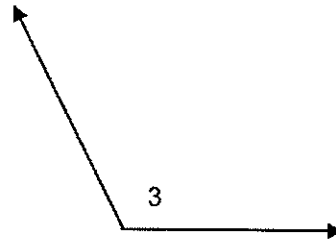
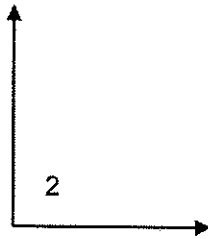
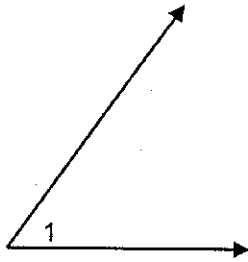
Measurement

- Angles are measured in units called degrees
- Use a protractor to measure angles- place the center point of the protractor over the vertex; align the mark labeled 0 on the protractor with one side of the angle.
- Measure of  $\angle ABC$  is abbreviated as  $m$  before an angle name, like  $m\angle ABC = 72^\circ$

Angle Classification

- Acute: if measure is greater than \_\_\_\_\_ but less than \_\_\_\_\_
- Right: if the measure is \_\_\_\_\_
- Obtuse: if the measure is greater than \_\_\_\_\_ but less than \_\_\_\_\_
- Straight: if the measure is \_\_\_\_\_

Measure each angle and classify according to the measure:



More Vocabulary:

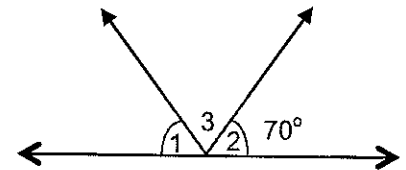
Congruent Angles have the same \_\_\_\_\_.

According to the picture, fill in the blanks:

$\angle 1$  \_\_\_\_\_  $\angle 2$  or  $m\angle 1$  \_\_\_\_\_  $m\angle 2$

$m\angle 1 =$  \_\_\_\_\_

$m\angle 3 =$  \_\_\_\_\_

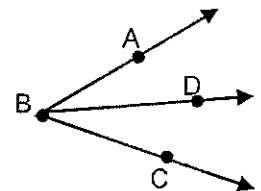


Angle Bisector

• a ray that divides an angle into \_\_\_\_\_

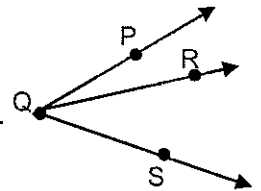
• If  $\overline{BD}$  bisects  $\angle ABC$  then  $\angle ABD$  \_\_\_\_\_  $\angle DBC$

and  $m\angle ABD$  \_\_\_\_\_  $m\angle DBC$

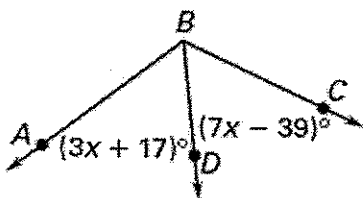


Angle Addition Postulate

• If R is in the interior of  $\angle PQS$  then  $\angle PQR + \angle RQS =$  \_\_\_\_\_



1.  $\overline{BD}$  bisects  $\angle ABC$ . Find  $m\angle ABC$ .



2. Given  $m\angle ADC = 135^\circ$ , find  $m\angle BDA$ .

