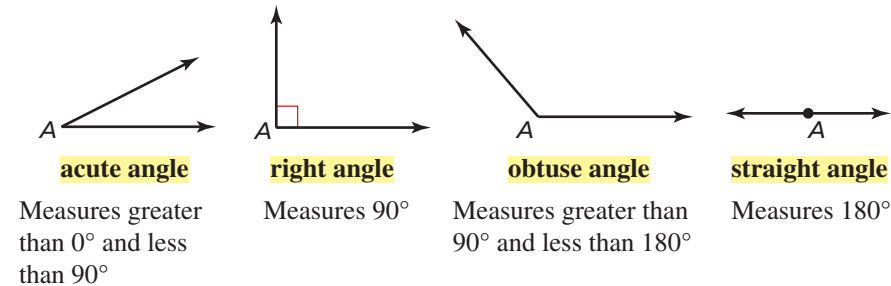


# Measuring and Classifying Angles

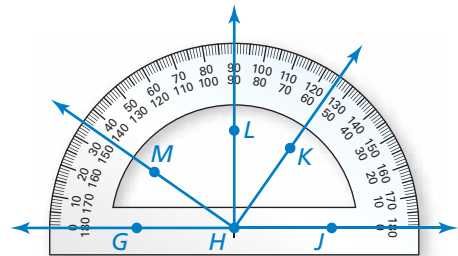
A protractor helps you approximate the measure of an angle. You can classify angles according to their measures.

## Types of Angles



**Example 1** Find the measure of each angle. Then classify the angle.

- $\angle GHK$
- $\angle JHL$
- $\angle LHK$



- $\overrightarrow{HG}$  lines up with  $0^\circ$  on the outer scale of the protractor.  $\overrightarrow{HK}$  passes through  $125^\circ$  on the outer scale. So,  $m\angle GHK = 125^\circ$ . It is an *obtuse* angle.
- $\overrightarrow{HJ}$  lines up with  $0^\circ$  on the inner scale of the protractor.  $\overrightarrow{HL}$  passes through  $90^\circ$ . So,  $m\angle JHL = 90^\circ$ . It is a *right* angle.
- $\overrightarrow{HL}$  passes through  $90^\circ$ .  $\overrightarrow{HK}$  passes through  $55^\circ$  on the inner scale. So,  $m\angle LHK = |90 - 55| = 35^\circ$ . It is an *acute* angle.

## Practice

Check your answers at [BigIdeasMath.com](http://BigIdeasMath.com).

Use the diagram to find the angle measure. Then classify the angle.

- $\angle BOC$   $50^\circ$ ; acute
- $\angle AOB$   $140^\circ$ ; obtuse
- $\angle DOB$   $180^\circ$ ; straight
- $\angle DOE$   $75^\circ$ ; acute
- $\angle AOC$   $90^\circ$ ; right
- $\angle BOE$   $105^\circ$ ; obtuse
- $\angle EOC$   $55^\circ$ ; acute
- $\angle COD$   $130^\circ$ ; obtuse

