

# How to Measure and Classify Angles

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# Meeting North Carolina Standards

## NCSCOS Objective 2.02

Identify, estimate, and measure the angles of plane figures using appropriate tools

## Essential Question

How do I measure and classify  
an angle?

# Let's Review!!!

## A Point



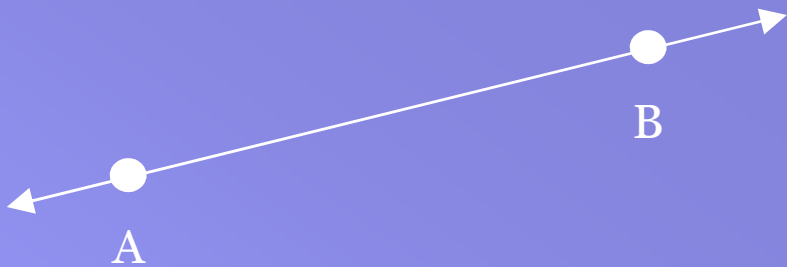
A

- Used to tell the position of lines or objects
- Usually named with capital letters

This is point A.

# Let's Review!!!

## A Line



This is line  $\overleftrightarrow{AB}$ .

- Extends in opposite directions and goes on without ending
- Named by points with a line symbol written above them.

# Let's Review!!!

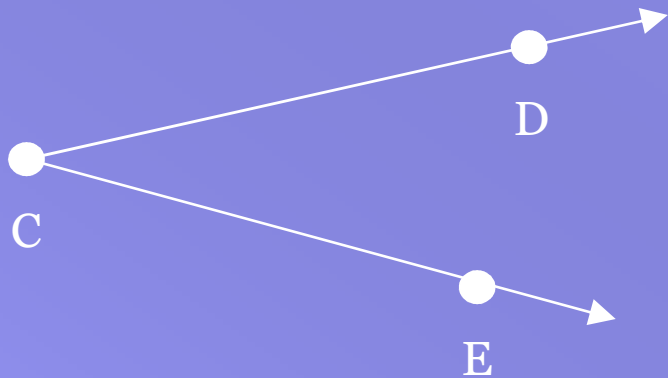
## A Ray



This is ray  $\overrightarrow{CD}$ .

- Part of a line that extends in one direction from one endpoint into infinity
- Named by the end point and one other point with a ray symbol written above them.

# An Angle



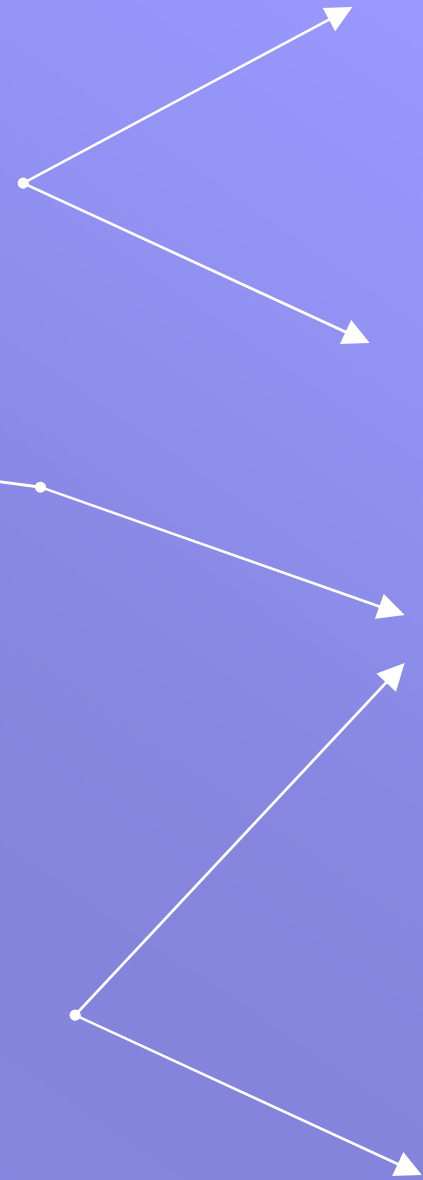
$\angle$  DCE

$\angle$  ECD

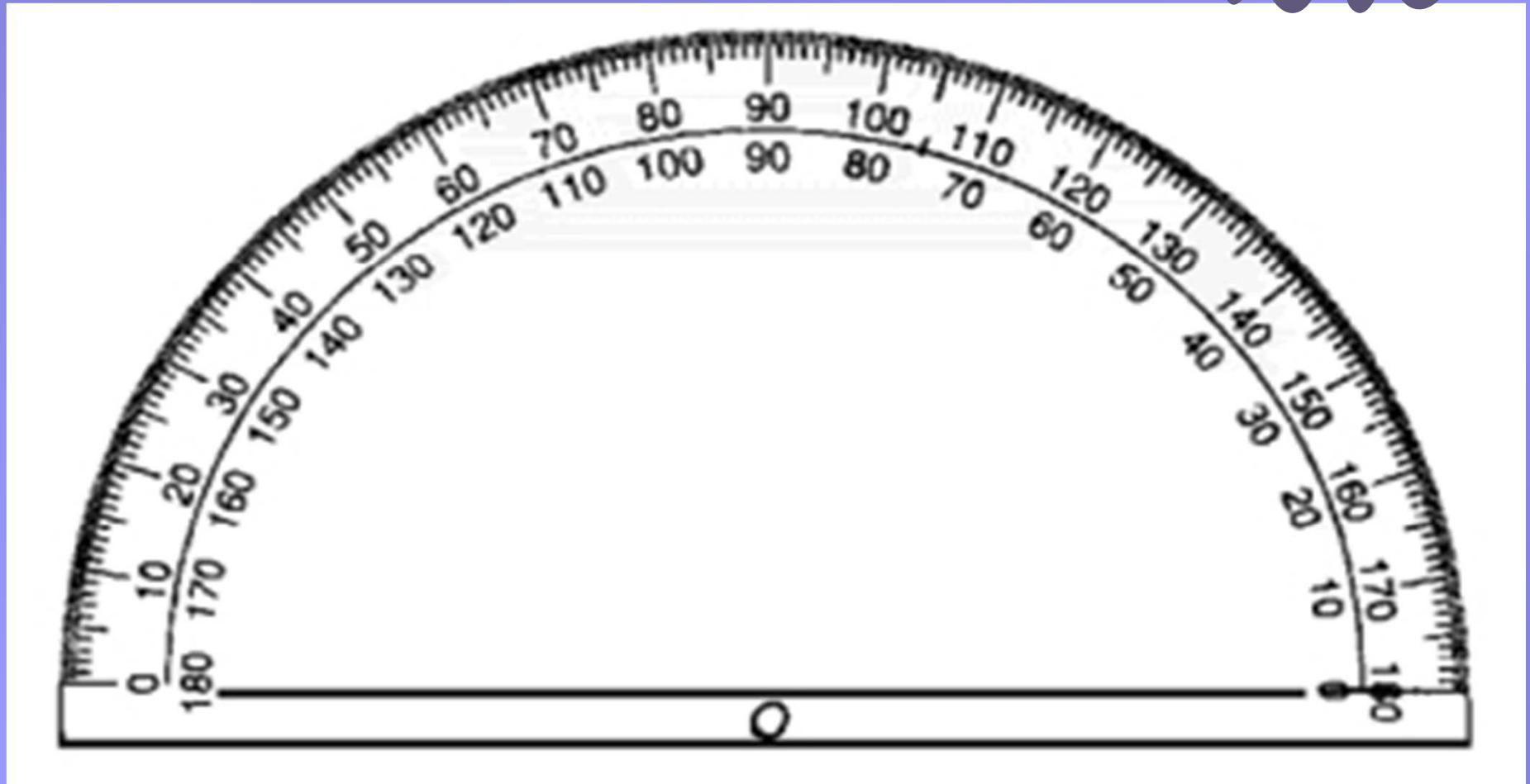
$\angle$  C

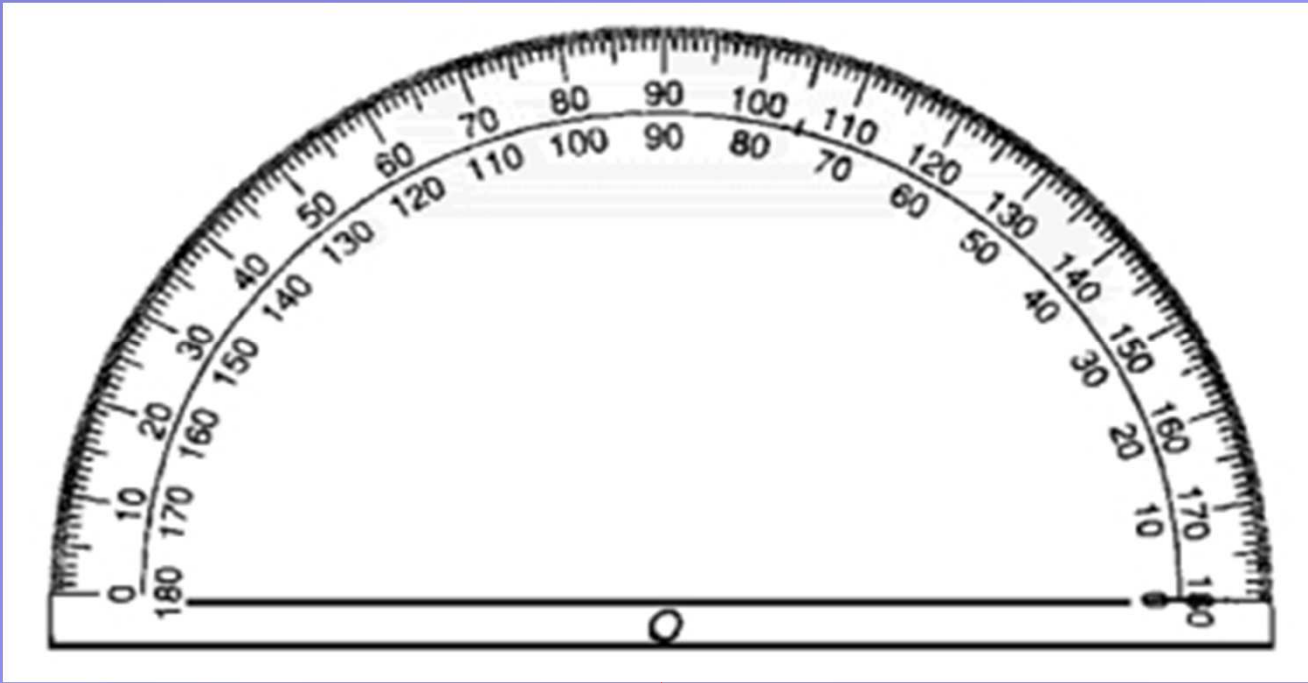
- Angles are formed by two rays with a common endpoint called a **vertex**.
- Angles are named by writing the names of 3 points on the set of lines after the angle symbol, or by naming only the middle point after the angle symbol.
- The middle point always names the vertex.

- Angles come in different shapes and sizes.
- Some are narrow; some are wide.
- All angles can be measured as a part of a circle.
- To make calculations easy, mathematicians use a protractor, a ruler for angles.
- Angles are measured in degrees from 0 to 180 .



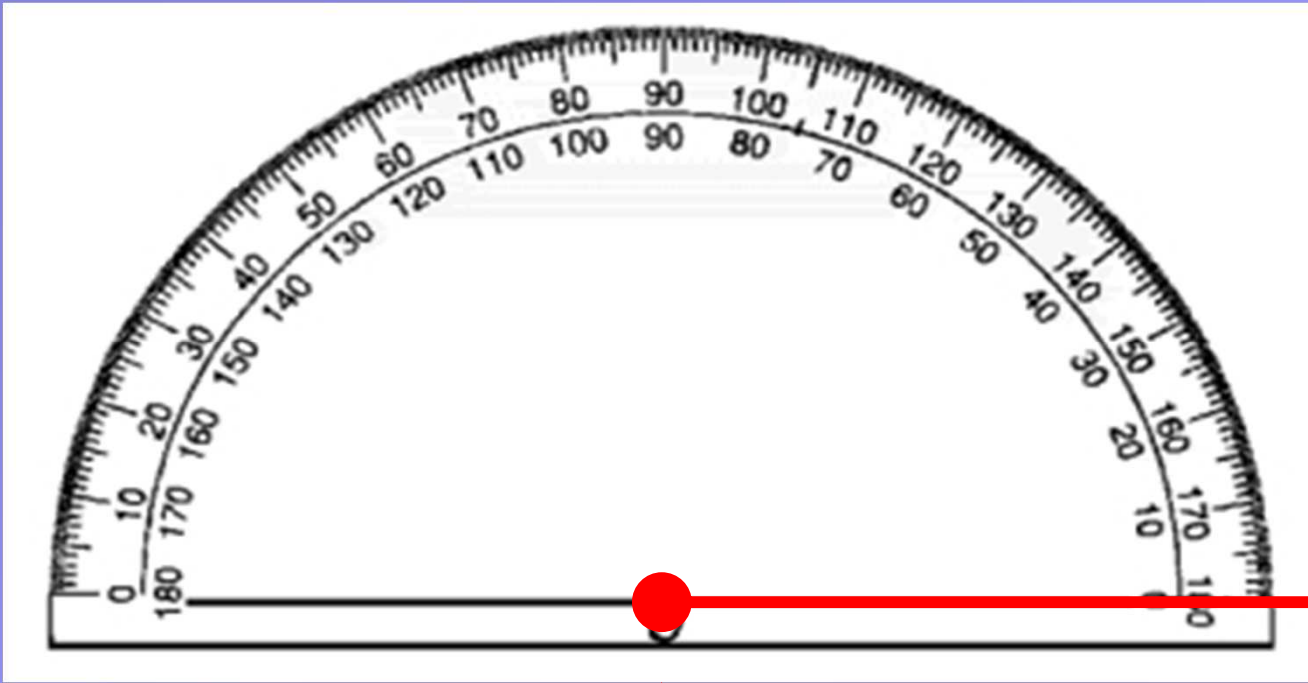
# A Protractor





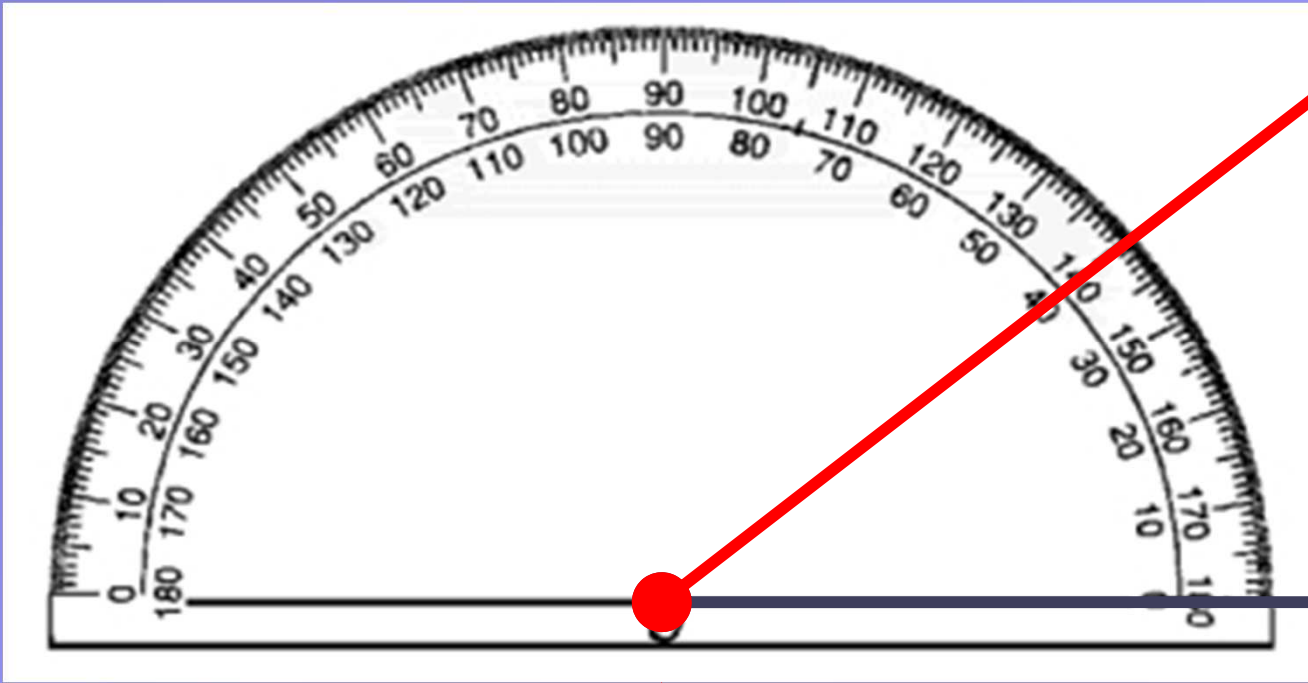
Locator Point

Place the locator point (at the bottom center of the protractor) on the **vertex** of the angle you wish to measure.



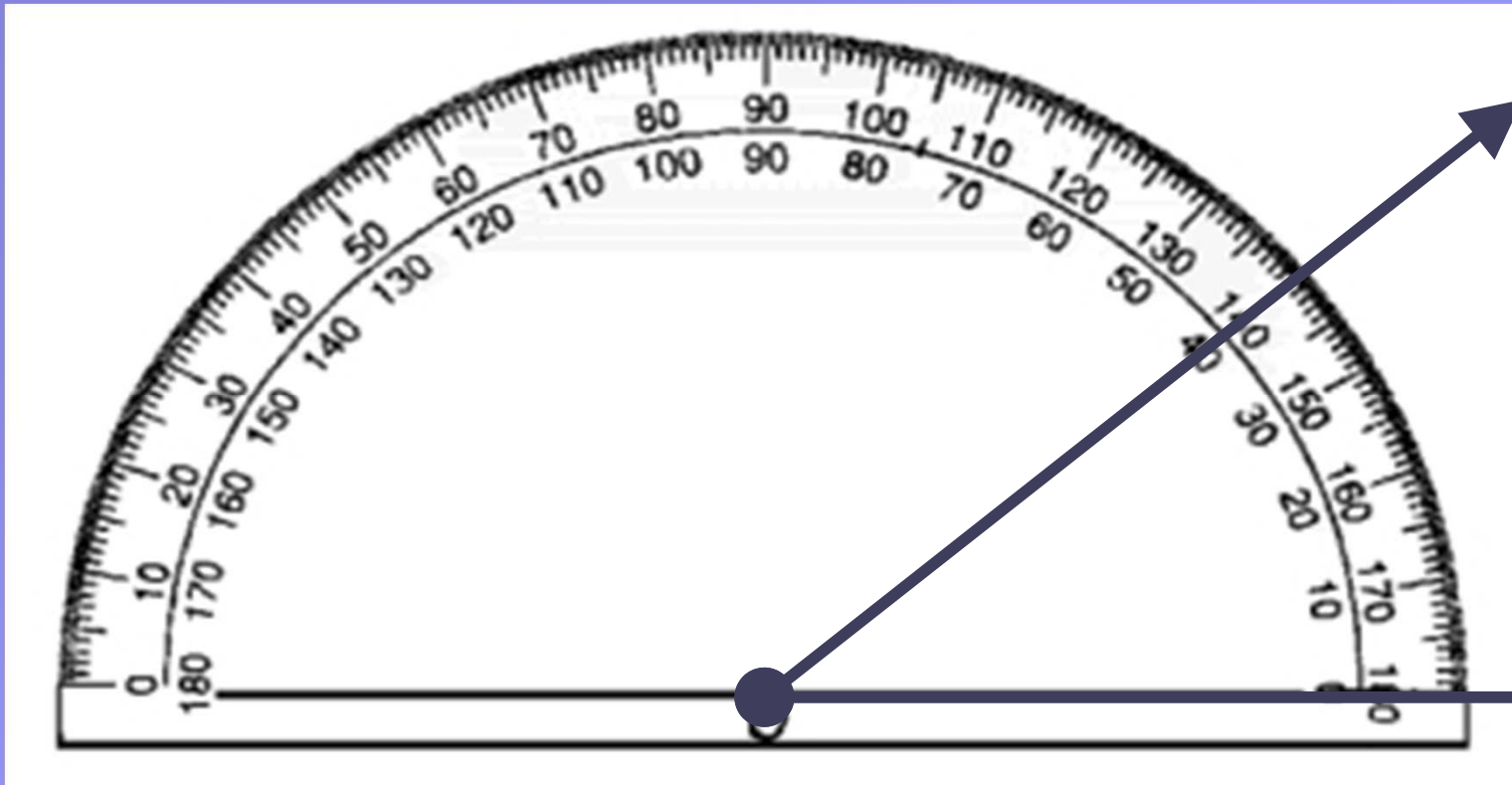
Locator Point

Next, align one leg of the angle with the bottom leg of the protractor (at 0 ).



Locator Point

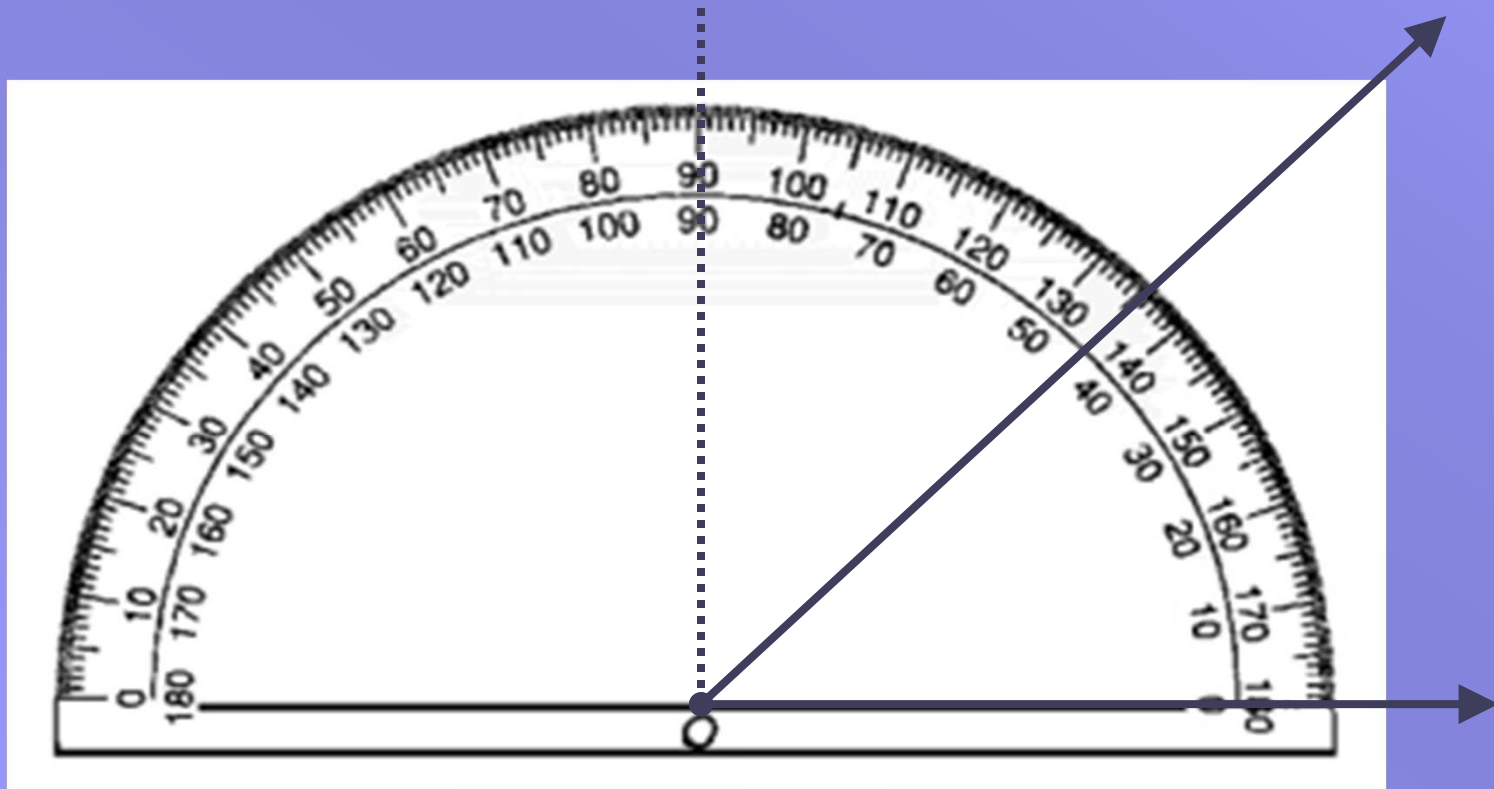
Last, follow the other leg of the angle to measure its distance from the 0°.



In this illustration,  
the angle measures  $40^\circ$ .

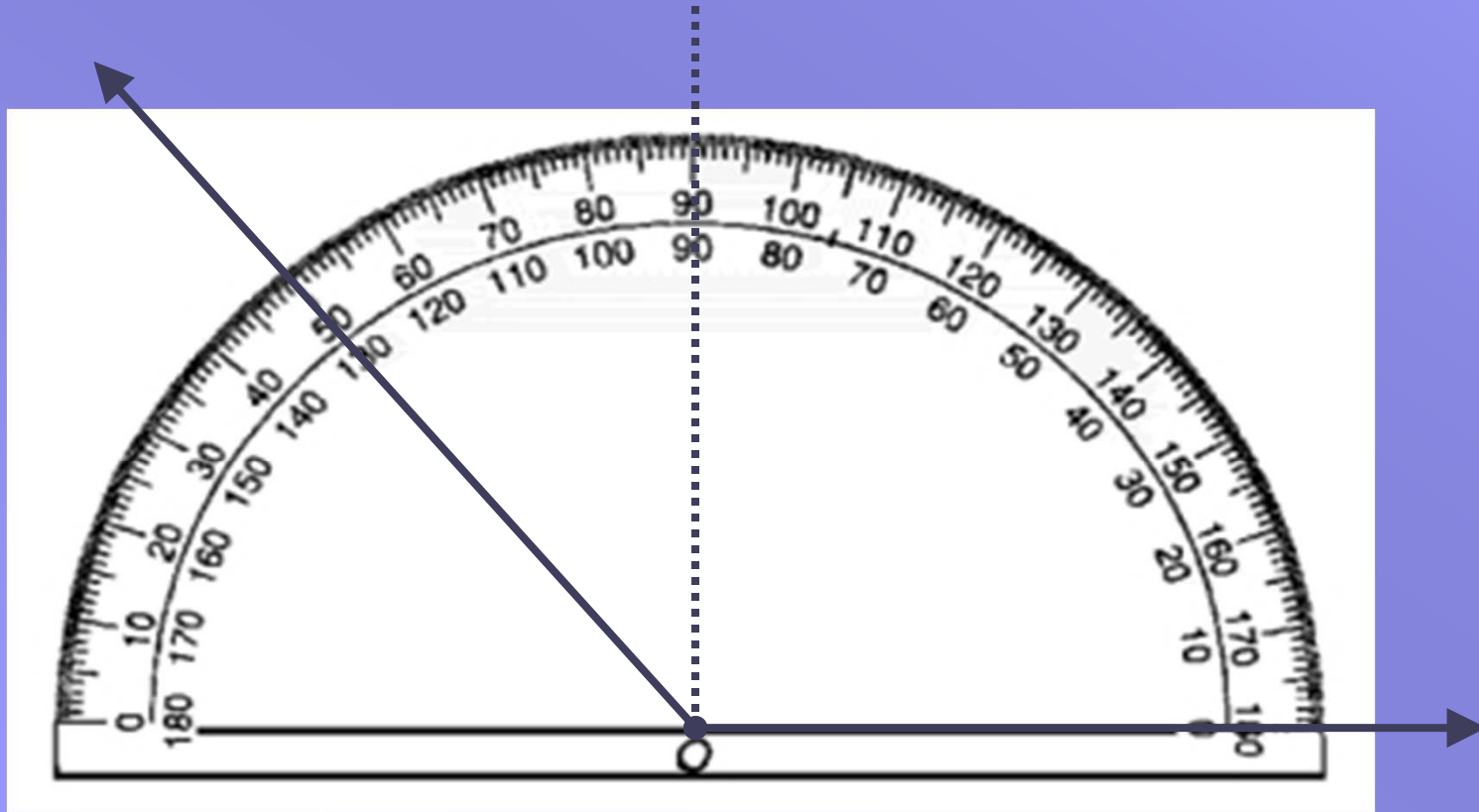
# Acute Angles

Angles that measure less than 90° .



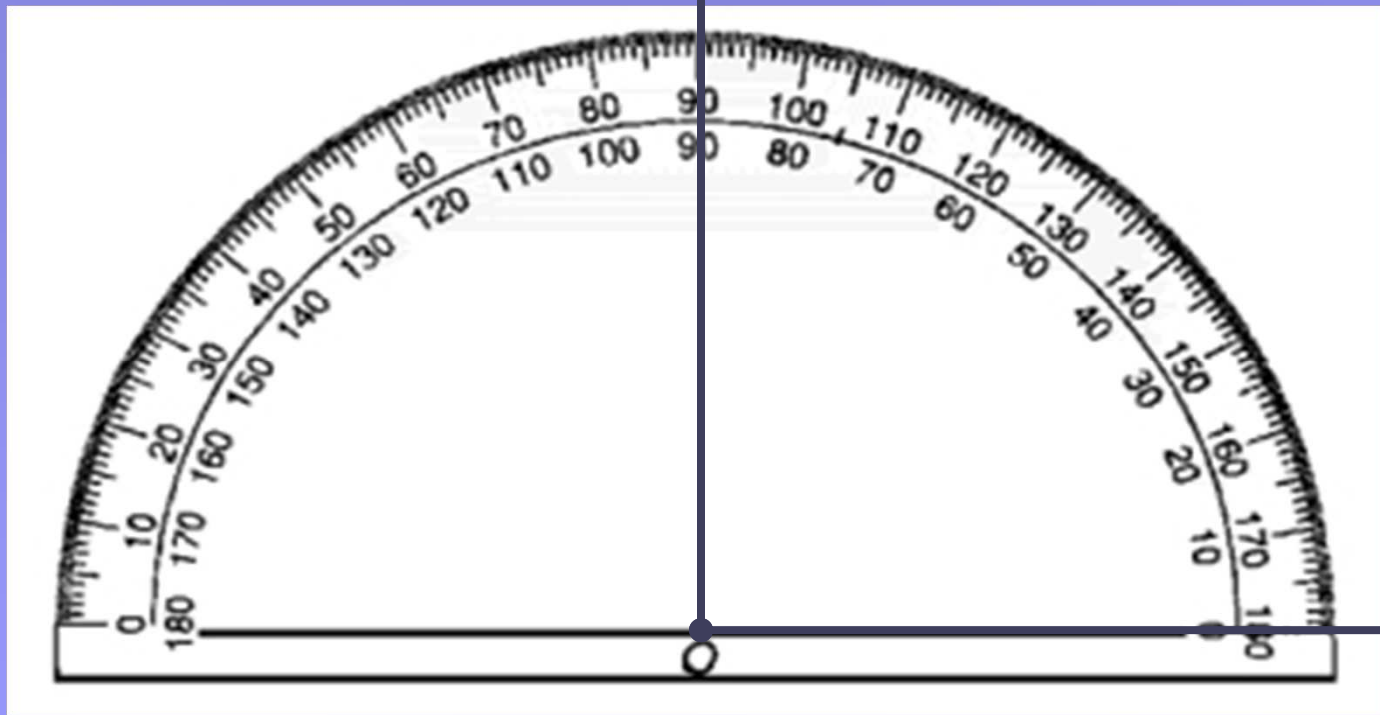
# Obtuse Angles

Angles that measure more than  $90^\circ$  .



# Right Angles

Angles that measure  $90^\circ$



Zeman, Anne & Kate Kelly.  
Everything You Need to Know  
About Math Homework.