



Interactive Journal #9

# Investigating Angles in Triangles

Materials: copy paper,  
construction paper, pen  
scissors, glue, protractor



# Angle Relationships in Triangles

## Focus on Reasoning

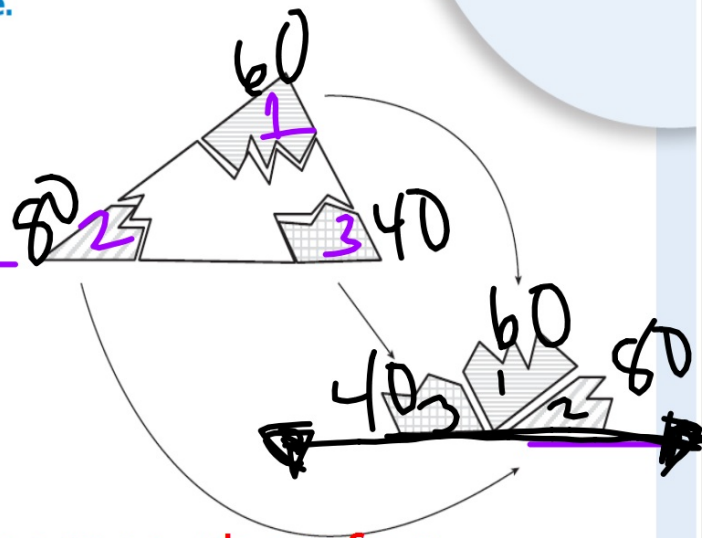
**Essential question:** *What are some theorems about angle measures in triangles?*



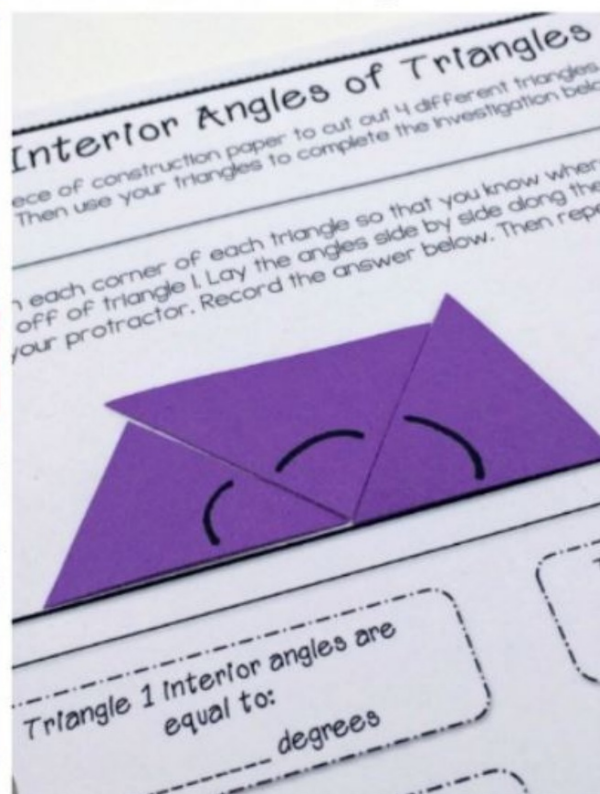
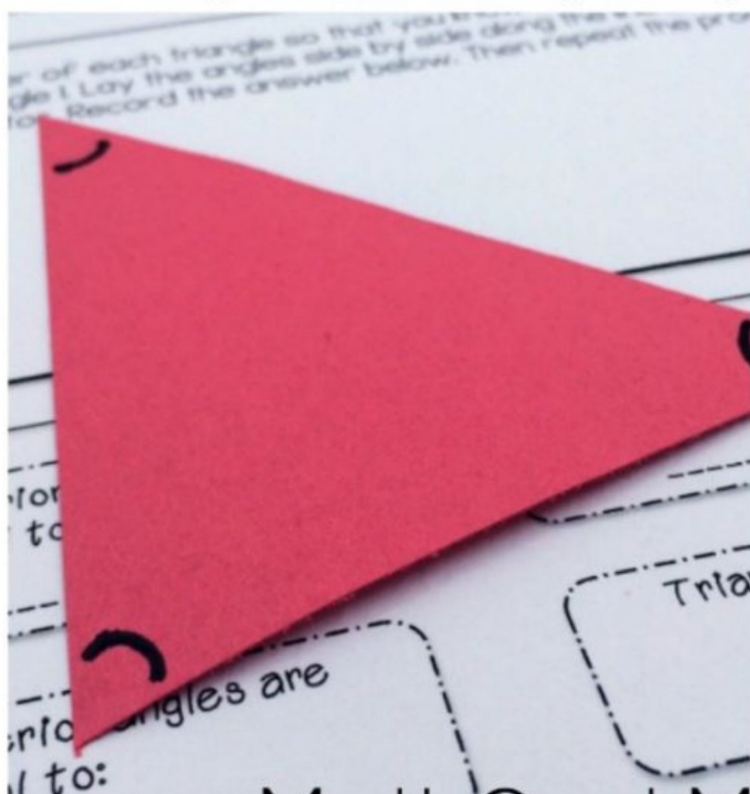
G-CO.3.10

### 1 Investigate the angle measures of a triangle.

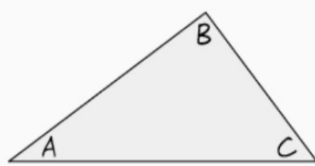
- A** Use a straightedge to draw a large triangle on a sheet of paper.
- B** Cut out the triangle.
- C** Tear off the angles of the triangle.
- D** Place the angles together so their sides are adjacent and their vertices meet at a point.  
Take note of how the angles come together.



**\*A straight line is 180 degrees, therefore there is 180 degrees in a triangle.**



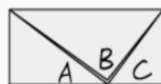
Proof:



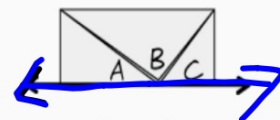
Step 1



Step 2



Step 3

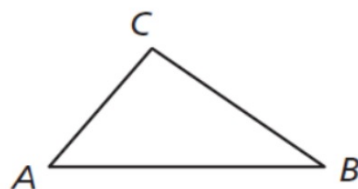


Step 4



### The Triangle Sum Theorem

The sum of the angle measures in a triangle is  $180^\circ$ .



$$m\angle A + m\angle B + m\angle C = 180^\circ$$