



# ANGLE RELATIONSHIPS

## MATH LIB ACTIVITY

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# Angle Relationships

## “Math Lib” Activity!

**Objective:** To practice finding missing angle measures using angle relationships. Students must have an understanding of vertical angles, complementary angles, supplementary angles, linear pairs, angle bisectors, and perpendicular lines. Angles given as algebraic expressions along with verbal descriptions are also included. This activity was designed for a high school level geometry class.

**Activity Directions:** Print and post the ten stations around the room. Give each student the worksheet to record their work as they travel to the stations. Group students (I typically do groups of 3) and assign to a starting problem. Set the timer for 3:30 minutes (more if needed). Students solve the problem at the station, then look for their answer and record the piece to the story. When the timer goes off, they move to the next station.

You are able to edit each slide to change the teacher name and all story elements to personalize for your students. PowerPoint is required to edit the slides. They enjoy seeing which one of their teachers is the “star” of the story!

**1** Find  $m\angle A$

$(6x - 4)$   
 $(8x - 2)$

A)  $95^\circ$   
B)  $98^\circ$   
C)  $102^\circ$   
D)  $105^\circ$   
E)  $108^\circ$

**4** Find  $m\angle B$

$(8y - 1)$   
 $(10x - 19)$

A) 12  
B) 15  
C) 16  
D) 18  
E) 19

Rihanna  
Jennifer Lopez  
Jimmy Fallon  
Drake  
Gwen Stefani

**7** If  $\overleftrightarrow{YZ}$  bisects  $\angle WYU$ , find  $m\angle V$

A)  $36^\circ$   
B)  $40^\circ$   
C)  $38^\circ$   
D)  $32^\circ$   
E)  $34^\circ$

**10** Read and solve the problem below:

$\angle 1$ ,  $\angle 2$ , and  $\angle 3$  form a straight line. If  $m\angle 3$  is six more than twice  $m\angle 1$  and  $m\angle 2$  is 27 less than  $m\angle 3$ , find  $m\angle 2$ .

A)  $57^\circ$  film a music video  
B)  $39^\circ$  make their parents proud  
C)  $105^\circ$  get out of math class  
D)  $61^\circ$  win a cruise to the Bahamas  
E)  $84^\circ$  inspire people

**10 Stations & Student Worksheet Included**  
**You can change ALL story elements!**