



Problem 1 – Exterior and Remote Interior Angles

1. Why is $\angle GED$ called an _____?
2. Why are $\angle EDF$ and $\angle DFE$ called _____?
3. Move point D to four different positions and collect the data in the table below.

Position	$m\angle GED$	$m\angle EDF$	$m\angle DFE$
1			
2			
3			
4			

4. How is the measure of $\angle GED$ related to the measure of $\angle EDF$?
5. How is the measure of $\angle GED$ related to the measure of $\angle DFE$?
6. Move point D to four different positions and collect the data in the table below.

Position	$m\angle GED$	$m\angle EDF + m\angle DFE$
1		
2		
3		
4		

7. How is the measure of $\angle GED$ related to the sum of the measures of $\angle EDF$ and $\angle DFE$?
8. Angle GED is an exterior angle. Angles EDF and DFE are its remote interior angles. What conjectures can you make about an exterior angle and its remote interior angles?