



Exterior & Remote Interior Angles

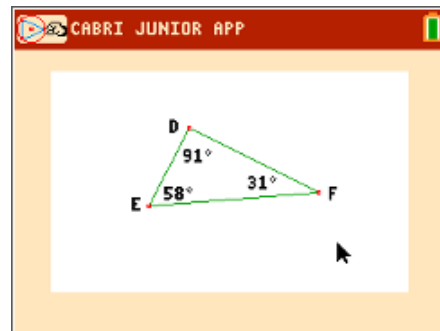
Student Activity

Name _____

Class _____

Start the Cabri Jr. application and open the file **EXTINT**. Triangle DEF is shown with its interior angle measures.

- Create \overline{DE} using the **Line** tool.
- Place point G on the outside of point E using the **Point On** tool.
- Use the **Angle** tool to find the measure of $\angle GEF$.



1. Move point E to four different positions and record the data in the table.

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

How is the measure of $\angle GEF$ related to the measures of $\angle EDF$ and $\angle DFE$?

- Use the **Alph-Num** tool to place $EDF + DFE$ on the screen.
- Find the value of the expression using the **Calculate** tool. Select the first angle measure, select the operation, and select the other angle measure.

2. Move point E to four different positions and record the data in the table.

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

How is the measure of $\angle GEF$ related to the sum of the measures of $\angle EDF$ and $\angle DFE$?

3. Angle GEF 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?