

ACTIVITY 17

Name _____

Date _____

Triangle Sum

As you construct and manipulate the geometric objects, record your observations below.

1. Construct triangle $\triangle GET$. (F3 3:Triangle)
2. Measure the angles $\angle GET$, $\angle GTE$, and $\angle TGE$. (F6 3:Angle)
3. Calculate their sum. (F6 6:Calculate)

What do you observe?



1. Create line \overleftrightarrow{GE} . (F2 4:Line)
2. Create point Y on \overleftrightarrow{GE} so that $Y-G-E$. (F2 2:Point on Object)
3. Measure $\angle TGY$. (F6 3:Angle)

What do you observe?



1. Construct a line through G parallel to segment \overline{ET} . (F4 2:Parallel Line)
2. Create point R on the parallel line in the interior of $\angle YGT$. (F2 2:Point on Object)
3. Measure $\angle TGR$ and $\angle RGY$. (F6 3:Angle)

What do you observe?



1. Construct a line through E parallel to \overline{GT} . (F4 2:Parallel Line)
2. Create points S and C on this line where $S-E-C$, and S and T are on opposite sides of segment \overline{GE} . (F2 2:Point on Object)
3. Measure $\angle SEG$ and $\angle CET$. (F6 3:Angle)

What do you observe?



OBSERVATIONS

