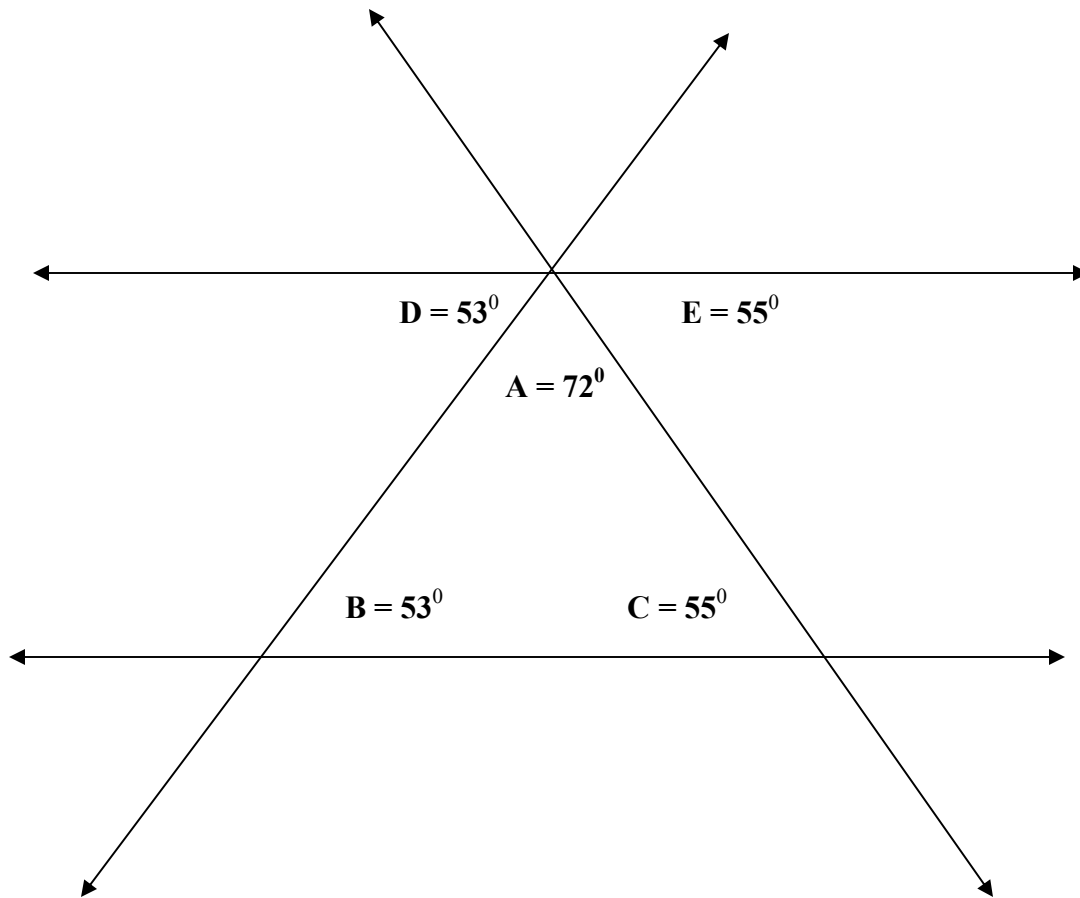


## Special Interior Angles for Triangles – Activity C



Using a Protractor, Verify Sum of Angles D,A,E =  $180^{\circ}$  ! Angles D,A,E are Supplementary!  
Using a Protractor, Verify Angles D & B are Equal & Verify Angles E & C are Equal! **Why?**  
Since Angles D,A,E =  $180^{\circ}$  & D=B & E=C then Sum of Interior Angles of  $\triangle A,B,C = \underline{\hspace{2cm}}$  ?

The Sum of Angles D,A,E =  $180^{\circ}$

Why? Supplementary Angles

Angles D & B are Equal Angles!

Why? Alternate Interior Angles

Angles E & C are Equal Angles!

Why? Alternate Interior Angles

Therefore Angles A,B,C =  $180^{\circ}$

Why? By Direct Measurement **but** is it true?

The above Statements would be considered a **Deductive Proof!**

Look up the **Definition** of a **Deductive Proof** & find a specific example!

A **Deductive Proof** is valid reasoning in **all areas of Mathematics!**