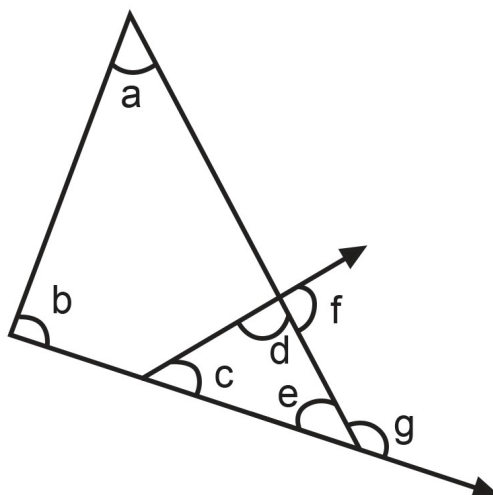


Name: \_\_\_\_\_

Date Started: \_\_\_\_\_ Date Finished: \_\_\_\_\_ Score: \_\_\_\_\_

### Learning Activity Sheet Exterior Angle Inequality Theorem

A. Answer the following using the triangle given on the right. Write the answers in the blanks provided. Few items are done for you.



- Determine the angle whose measure is equal to the sum of the measures of  $\angle a$  and  $\angle b$ ? \_\_\_\_\_
- In which pair of angles will  $\angle f$  be equal to? \_\_\_\_\_
- In which angles will  $\angle g$  be greater than?  $\angle a$ , \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- In which angles will  $\angle f$  be greater than?  $\angle c$ , \_\_\_\_\_
- Determine which statements are **TRUE** and which are **FALSE**.

a.  $\angle g > \angle a$  **TRUE**

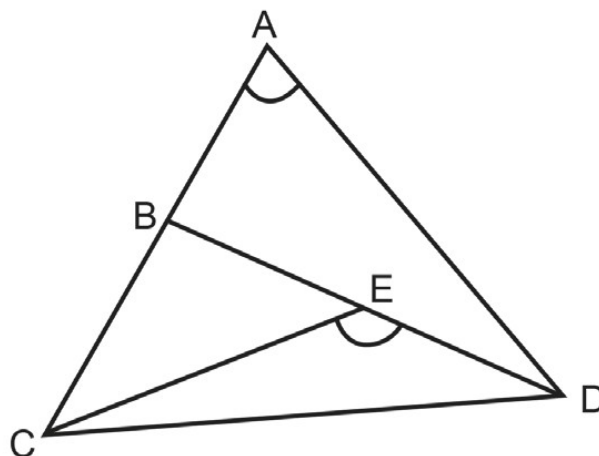
b.  $\angle f < \angle e$  \_\_\_\_\_

c.  $\angle b < \angle g$  \_\_\_\_\_

B. Prove the statement below using a two-column proof. You may add rows if necessary.

Given:  $\overline{BD}$  and  $\overline{AC}$  are straight lines.

Prove:  $\angle CED > \angle CAD$



Statements	Reasons