



Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

### The Outside Angle

Use your protractor to measure the indicated angles on the **Triangles** page. Complete the table below for each triangle.

1.

Triangle	$m\angle 1$	$m\angle 2$	$m\angle x$
A	$65^\circ$	$65^\circ$	$130^\circ$
B	$120^\circ$	$40^\circ$	$160^\circ$
C	$36^\circ$	$54^\circ$	$90^\circ$
D	$15^\circ$	$25^\circ$	$40^\circ$

2. Calculate the sum of  $m\angle 1$  and  $m\angle 2$  for each triangle.

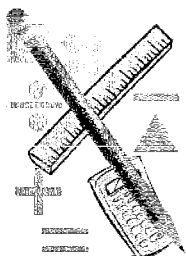
Triangle	$m\angle 1 + m\angle 2$
A	$130^\circ$
B	$160^\circ$
C	$90^\circ$
D	$40^\circ$

3. What is the relationship between the sum  $m\angle 1 + m\angle 2$  and  $m\angle x$  for each triangle?

*They are the same.*

#### Communicating About Mathematics

How would you describe the measure of angle  $x$  on the four triangles?

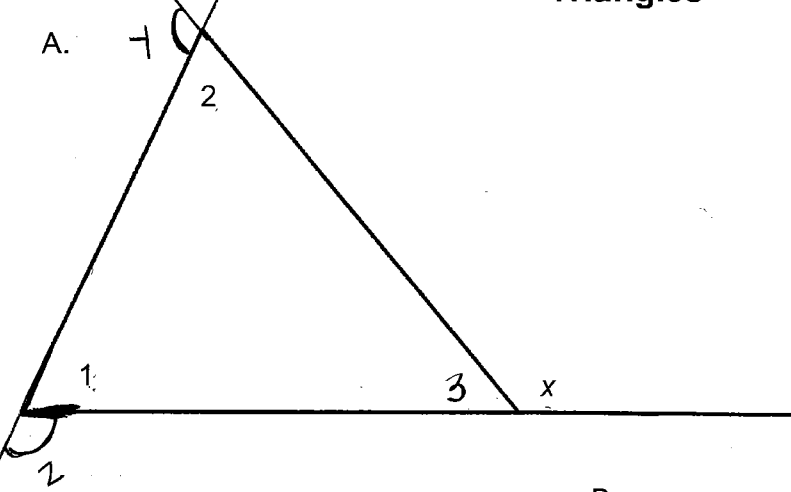


*The exterior angle,  $x$ , is equal to the sum of its 2 remote interior angles.*

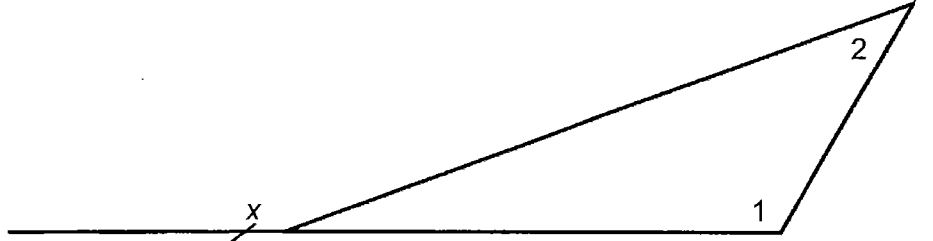


### Triangles

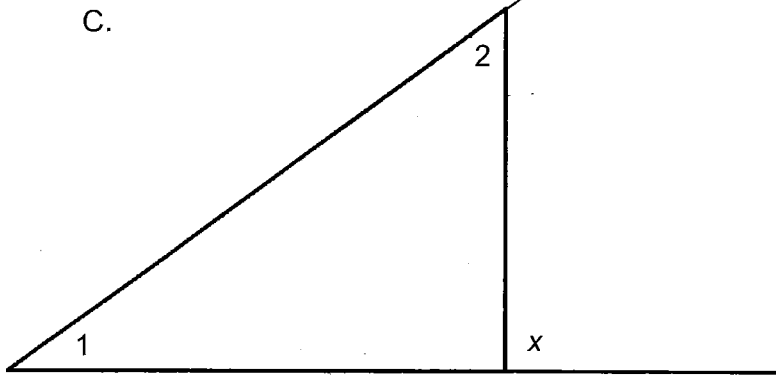
A.



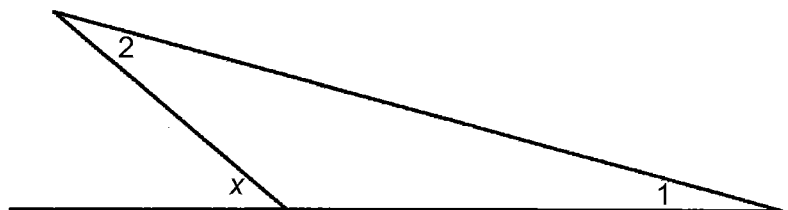
B.



C.



D.



### VOCAB

- $\angle 1, \angle 2, \text{ \& } \angle 3$  are interior  $\angle$ s
- $\angle x$  is an exterior  $\angle$
- $\angle 3$  &  $\angle x$  form a linear pair and are adjacent.
- $\angle 1$  &  $\angle 2$  are remote interior to  $\angle x$ .