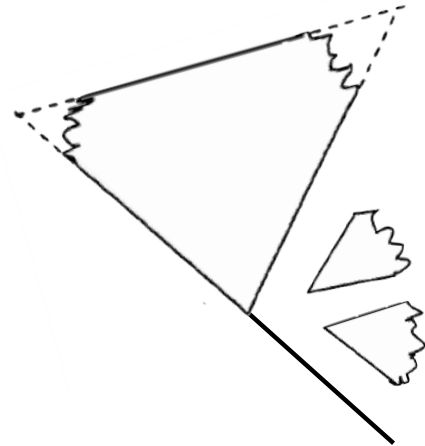


EXTERIOR ANGLE THEOREM

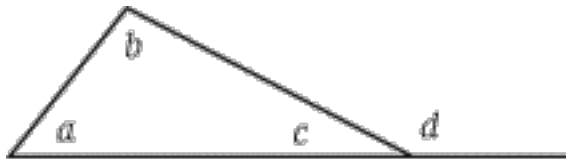
Exterior Angle Activity

1. Cut out a triangle from a piece of paper
(drawn with a straightedge as large as possible).
2. Label the angles 1, 2 and 3.
3. Trace the triangle into your INB on page ____,
label angles and extend one side of the triangle.
4. Tear the two corners not attached to extended side.
5. Position the two torn-off corners next to the
third angle as shown. Attach to your INB.
6. Based on what you see, make an educated guess
about the relationship between the exterior angle and the
two remote interior angles.



I think that the sum of the two remote interior angles of a triangle equals _____.

Fill in the proof below.

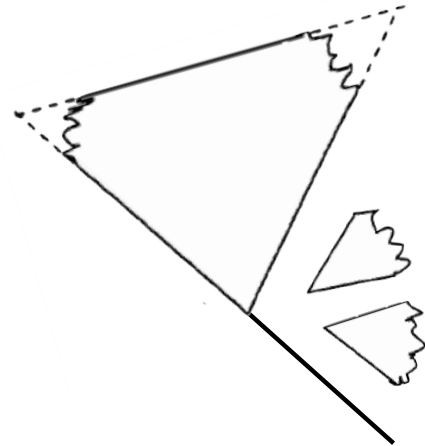


Statements	Reasons
$a + b + c = \underline{\hspace{2cm}}$	Sum of the angles in a triangle is _____.
$c + d = \underline{\hspace{2cm}}$	
$a + b + c = c + d$	
$\underline{\hspace{2cm}} = \underline{\hspace{2cm}}$	Subtraction Property

EXTERIOR ANGLE THEOREM

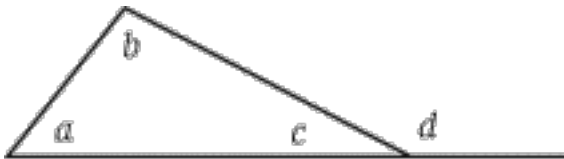
Exterior Angle Activity

1. Cut out a triangle from a piece of paper (drawn with a straightedge as large as possible).
2. Label the angles 1, 2 and 3.
3. Trace the triangle into your INB on page ____, label angles and extend one side of the triangle.
4. Tear the two corners not attached to extended side.
5. Position the two torn-off corners next to the third angle as shown. Attach to your INB.
6. Based on what you see, make an educated guess about the relationship between the exterior angle and the two remote interior angles.



I think that the sum of the two remote interior angles of a triangle equals *the exterior angle measure*.

Fill in the proof below.



Statements	Reasons
$a + b + c = 180$	Sum of the angles in a triangle is 180.
$c + d = 180$	Definition of a Linear Pair.
$a + b + c = c + d$	Substitution Property or Transitive Property
$a + b = d$	Subtraction Property