Parallel Lines and the Angles Formed Activity

1. Cut out and sort the eight angles into two different piles; one pile with the obtuse angles, one pile with the acute angles. Record the numbers of the angles in the chart below.

   What do you notice about all the angles in the acute pile?_____

   What do you notice about all the angles in the obtuse pile?_____

Acute Angles		Obtuse Angles	
Angle number	**Angle degrees**	**Angle number**	**Angle degrees**

2. Measure one of the *acute* angle's degrees using a protractor.   Degrees =_____

What do you think is true about the degrees of the other 3 acute angles?_____

Fill in their degrees into the chart above.
3. Measure one of the *obtuse* angle's degrees using a protractor.   Degrees =_____

What do you think is true about the degrees of the other 3 obtuse angles?_____

Fill in their degrees into the chart above.
4. What is true about the sum of the degrees of: (any acute $\angle$) + (any obtuse $\angle$)? _____

5. Arrange the angle pieces in your notebook along a long Transversal line according to the diagram below. The pieces should model a pair of parallel lines and a transversal.
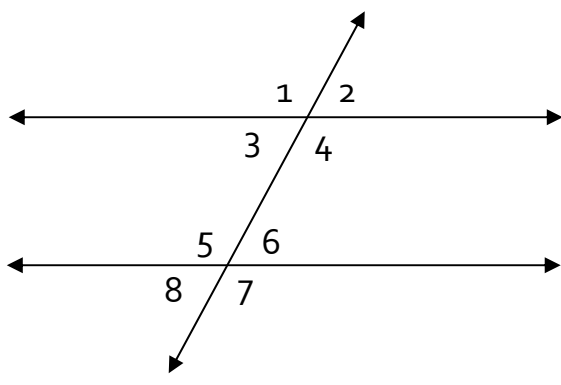
6. On the reverse side of this worksheet, draw a Brace Map for the diagram at the left. Fill in the angle degrees for *each* angle using the results above.
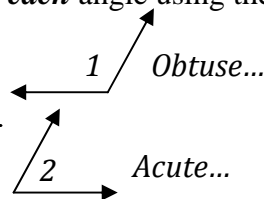
1 / Obtuse…

2   Acute…

Summary: When parallel lines are cut by a transversal eight angles are formed; four acute and four obtuse. Each of the 4 acute angles will always have the same degrees. Each of the 4 obtuse angles will always have the same degrees. If you add the degrees of any acute angle to the degrees of any obtuse angle you always get the sum of 180°.