

# What's the Angle?



Follow your teacher's directions to fold a piece of notebook paper and label Angles 1, 2, 3, 4, 5, 6, 7, and 8.

1. Lightly shade Angles 1, 5, 4, and 8 in blue. These are called exterior angles. Why?
2. Lightly shade Angles 2, 3, 6, and 7 in yellow. These are called interior angles. Why?
3. Using a piece of patty paper, trace Angle 1 and determine which of the other angles are congruent to it. Use the patty paper and determine other pairs of congruent angles. List below all of the pairs of congruent angles.
4. If the sum of the degrees of two angles is equal to  $180^\circ$ , then the angles are called supplementary. If two angles form a linear pair, then they are called supplementary. Using the patty paper, list below all of the pairs of angles that are supplementary.

# What's the Angle?

## Teacher Directions for folding the paper:

Using a piece of notebook paper follow these paper folding directions:

1. Fold the paper vertically (hot dog style) in half.
2. Once more, fold the paper vertically in half.
3. Open the paper and fold it horizontally (hamburger style).
4. Use a ruler and a marker and trace the vertical line segment in the middle of the page. (This line segment is called a transversal.)
5. In the upper left quadrant, mark a point on the left vertical fold and label it Point A.
6. In the upper right quadrant, mark a point on the right vertical fold \_\_\_\_\_ lines below Point A and label it Point B.
7. Draw a line segment between Points A and B.
8. In the lower left quadrant, mark a point on the left vertical fold and label it Point C.
9. In the lower right quadrant, count down the same number of lines as in #6, and mark and label the Point C.
10. On the left side of the transversal, label the angles formed as 1, 2, 3, and 4.
11. On the right side of the transversal, label the angles formed as 5, 6, 7, and 8.

## EXTENSION

Other angle relationships to investigate:

Corresponding angles  
Alternate Interior Angles  
Alternate Exterior Angles  
Vertical Angles  
Same Side Interior Angles