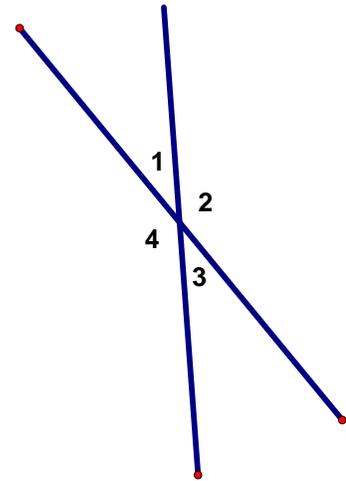


## Vertical Angles

Name \_\_\_\_\_

a. Just looking, what might be true about the angle pairs in these two intersecting segments?

1. Angles 1 and 2 \_\_\_\_\_
2. Angles 2 and 3 \_\_\_\_\_
3. Angles 3 and 4 \_\_\_\_\_
4. Angles 4 and 1 \_\_\_\_\_
5. Angles 1 and 3 \_\_\_\_\_
6. Angles 4 and 2 \_\_\_\_\_



b. Measure each of the four angles and write the degrees. Then use the measures to prove or disprove your prediction about the angle pairs.

### 5. Work like a mathematician. Test the theory.

a. Draw two intersecting lines (make it look somewhat different than above). Label the angles:  $\angle A$ ,  $\angle B$ ,  $\angle C$ , and  $\angle D$ . Predict which pairs of angles are congruent. Then measure the angles and label the degrees to prove your theory.

I predict that  $\angle$  \_\_\_ is congruent to  $\angle$  \_\_\_

I predict that  $\angle$  \_\_\_ is congruent to  $\angle$  \_\_\_

b. When two lines intersect, the pairs of congruent angles are called, "**vertical angles**". Arrange 4 Pattern Blocks Pieces so they share a vertex and form intersecting lines. Trace your pieces. Label the angles  $\angle H$ ,  $\angle I$ ,  $\angle J$ ,  $\angle K$ , and tell which pairs are vertical angles.