Angle Relationships

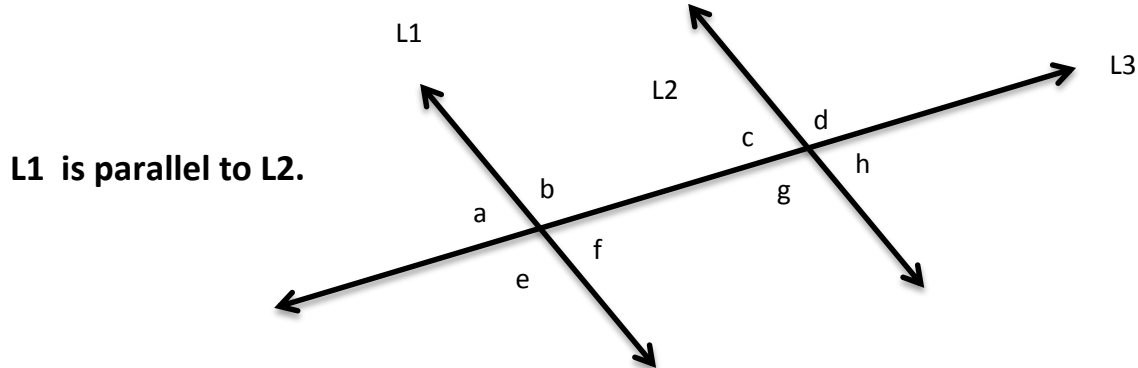NAME_____

L1

L2

L3

c

d

h

b

g

a

f

e

L1 is parallel to L2.

1. Identify *all* pairs of **vertical angles**.

2. Identify *all* pairs of **alternate interior angles**.

3. Identify *all* pairs of **same side interior angles.**

4. Identify *all* pairs of **corresponding angles**.

5. Identify *all* pairs of **alternate exterior angles**.

6. Identify *all* pairs of **same side exterior angles**.

7. Identify *three* pairs of **supplementary angles**.

8. **Suppose the m<b = 36°. Applying what you know about angles, find the measure of each of the following angles.**

   a. m<d =   b. m<e =   c. m<g =   d. m<f   e. m<c =

Draw a line A parallel to line B. Line C is a transversal crossing lines A and B.

9. Label the following angles on your diagram drawn above.
   a. <1 and <2 are alternate interior angles.
   b. <1 and <3 are corresponding angles.
   c. <1 and <4 are vertical angles.
   d. <2 and <5 are same side interior angles.
   e. <6 and <7 are vertical angles.
   f. <1 and <8 are supplementary
   g. <6 and <8 are corresponding angles.

10. For questions a-f, distinguish whether the pair of angles are alternate interior angles, corresponding angles, vertical angles, same side interior angles, same side interior angles, same side exterior angles, alternate exterior angles, or supplementary angles.

   a. <3 and <8 are _____ angles.
   b. <5 and <8 are _____ angles.
   c. <4 and <2 are _____ angles.
   d. <2 and < 3 are _____ angles.
   e. <2 and <6 are _____ angles.
   f. <6 and <1 are _____ angles.
   g. <5 and <6 are _____ angles.
   h. <4 and <2 are _____ angles.
   i. <4 and <3 are _____ angles.