1) In the diagram below, identify the relationship between each pair of angles.

a) <7 and <8

b) <2 and <7

c) <1 and <6

d) <5 and <7

2. Given the diagram below, identify the following angles.

a) an alternate exterior angle to <2

b) an interior angle on the same side of the transversal as <7

c) an alternate interior angle to <4

d) an angle corresponding to <5

3. Identify each of the following angles. Name the two lines and the transversal you are using.

 a) two angles corresponding to <1

b) an int angle on the same side of the transversal as <10

c) an alterate interior angle to <5

d) two int angles on the same side of the transversal as <8

4. In the diagram below, l1 is parallel to *l2*. State the measures of the indicated angles and explain your reasoning.



Angle Reason

<1 = \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

<2 = \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

<3 = \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

<4 = \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. What are the measures of the interior angles in the trapezoid shown below? (Hint: Be careful of the order in which you calculate the angles.)

Angle

<1 = \_\_\_\_\_\_\_\_\_\_\_

<2 = \_\_\_\_\_\_\_\_\_\_\_

6. Find a pair of parallel lines in the following g diagram. On the diagram, mark all the angles necessary to determine this. (only need to find 1 pair)



7. A plumber must install pipe 2 parallel to pipe 1. He knows that <1 is 53°. What is the measure of <2?



<2 = \_\_\_\_\_\_\_\_\_\_\_

8. What size must <1 be if *l*1 is parallel to *l2*?



<1 = \_\_\_\_\_\_\_\_\_

9. In the diagram below, if the side of the house and the side of the shed are parallel, what are the measures of <1 and <2?

Angle

<1 = \_\_\_\_\_\_\_\_\_\_

<2 = \_\_\_\_\_\_\_\_\_\_\_

10. Given the diagram below, where l1 is parallel to *l2*, find the measures of the indicated angles and state your reasons.

