Key

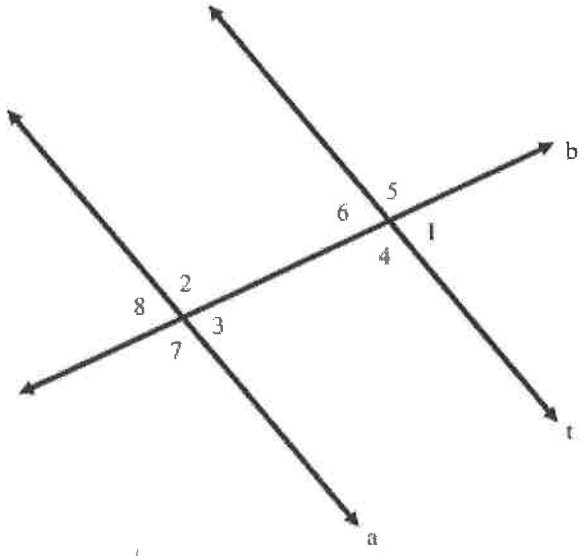
Math 1

Name_____

6-5 **Introduction to Proofs**

Date_____

Use the diagram to the right to answer Questions 1 & 2. Assume $a \parallel t$.



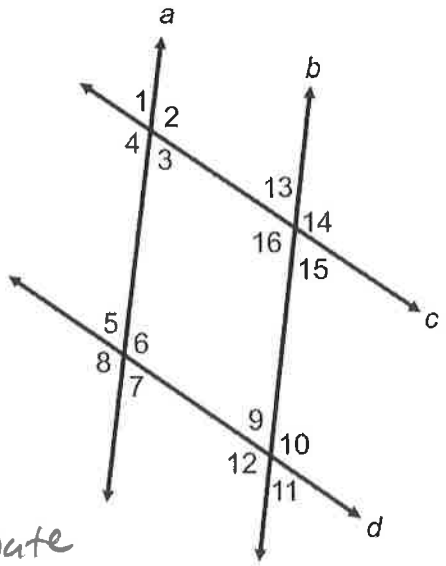
1. What is the relationship between the angle measures of $\angle 1$ and $\angle 2$?

   Supplementary.

2. Explain how you know the answer to #1 is correct. Make sure you use some of the vocabulary words you've learned this quarter.

- $m\angle 1 = m\angle 6$ since they are vertical angles
- $\angle 6$ + $\angle 2$ are supplementary since they are same-side interior angles.
- So $\angle 1$ + $\angle 2$ must be supplementary (substitution).

Use the diagram to the right to answer Questions 3 & 4. Assume $a \parallel b$ and $c \parallel d$.



3. What is the relationship between the angle measures of $\angle 1$ and $\angle 9$?

   Congruent.

4. Explain how you know the answer to #1 is correct. Make sure you use some of the vocabulary words you've learned this quarter.

Answers vary!

One method:

- $m\angle 1 = m\angle 15$ since they are alternate exterior angles
- $m\angle 15 = m\angle 9$ since they are alt. interior angles.
- So $m\angle 1 = m\angle 9$ (by substitution).