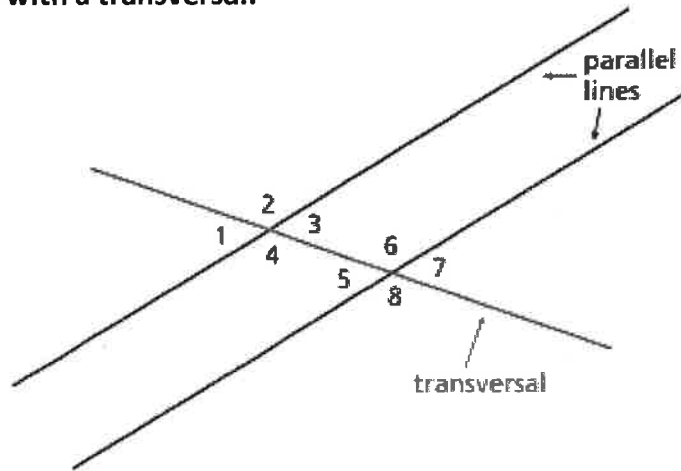


Parallel Lines and Transversals Notes

Example of parallel lines with a transversal:



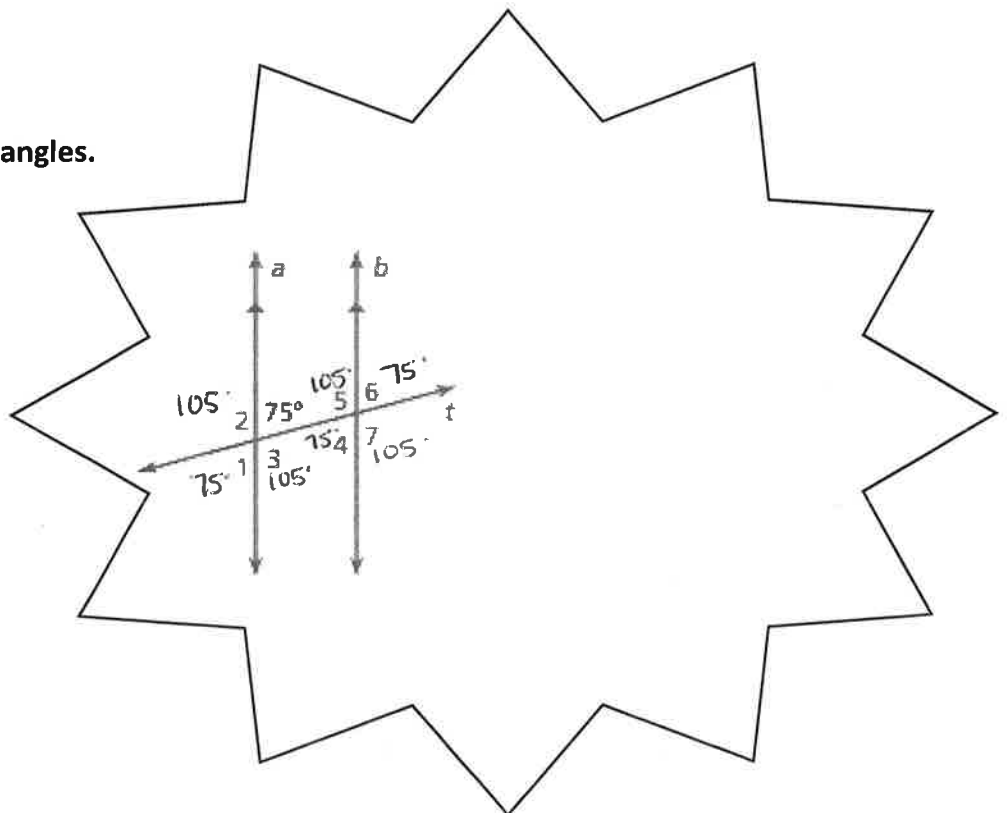
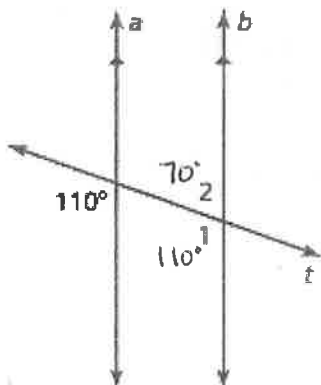
Adjacent Angles are side by side. They share a vertex and one side. Angles 1 and 2 above are adjacent angles.

Vertical Angles are formed by two intersecting lines. Vertical angles are opposite, or across, from one another. Angles 6 and 8 above are vertical angles.

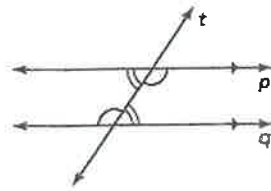
Corresponding Angles lie on the same side of the transversal in corresponding positions.

Angles 1 and 5 above are corresponding angles. Corresponding angles are congruent. This means they have equal measures.

Find the measures of the numbered angles.



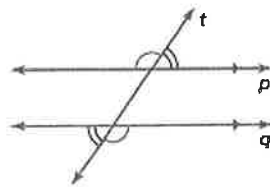
Alternate interior angles are congruent and **alternate exterior angles** are congruent too!



Alternate interior angles

What makes these alternate interior angles?

What makes these alternate exterior angles?



Alternate exterior angles

Use the picture to the right to identify the following:

List the alternate interior angles.

$\angle 2$ and $\angle 7$
 $\angle 5$ and $\angle 4$

List the alternate exterior angles.

$\angle 1$ and $\angle 8$
 $\angle 3$ and $\angle 6$

List two corresponding angles.

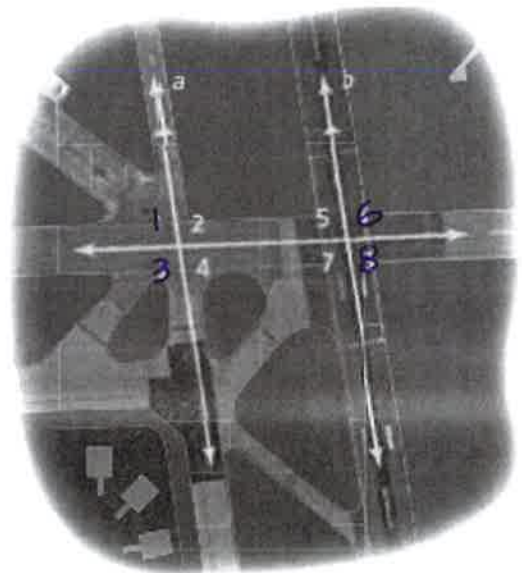
$\angle 1$ and $\angle 5$

List two adjacent angles.

$\angle 3$ and $\angle 4$

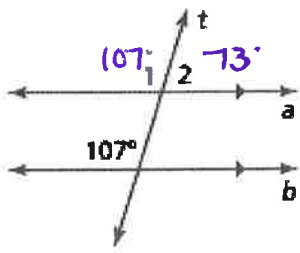
List two vertical angles.

$\angle 5$ and $\angle 8$

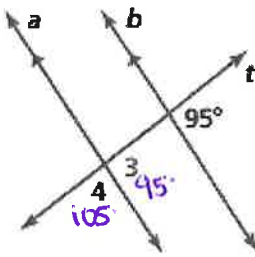


Use what you've learned about parallel lines and transversals to find the measures of the numbered angles in the figures below.

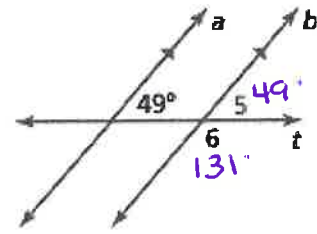
7.



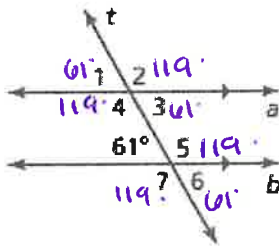
8.



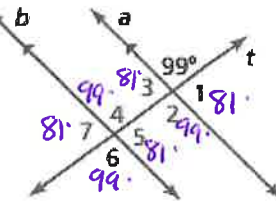
9.



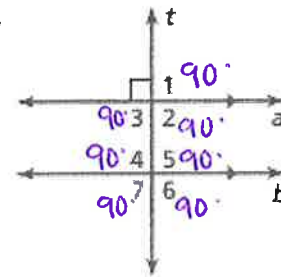
15.



16.

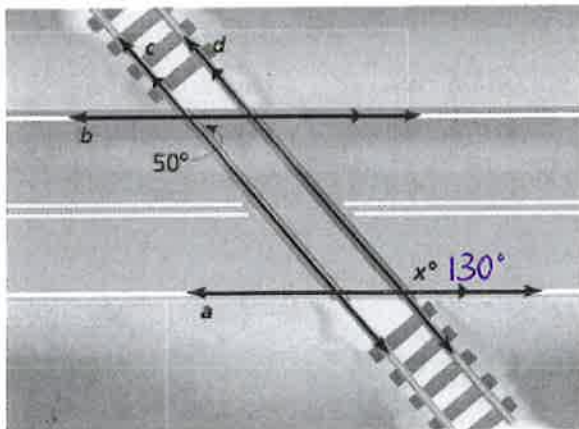


17.



CRITICAL THINKING Find the value of x .

27.



28.

