

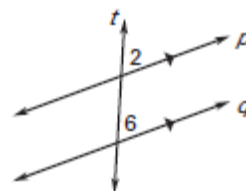


- I can identify angle pairs formed by a transversal.
- I can use the angles formed by parallel lines and transversals to solve algebraic problems.

You have just completed an activity in which you found the relationships between angle pairs formed by parallel lines and transversals. Let's summarize your findings:

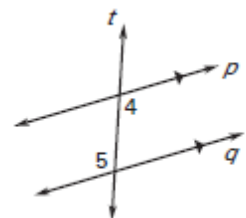
### Corresponding Angles Postulate

If two parallel lines are cut by a transversal, then the pairs of corresponding angles are \_\_\_\_\_.



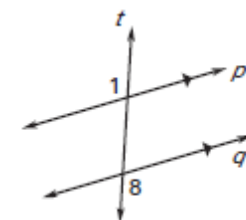
### Alternate Interior Angles Theorem

If two parallel lines are cut by a transversal, then the pairs of alternate interior angles are \_\_\_\_\_.



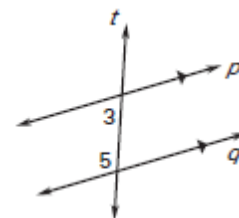
### Alternate Exterior Angles Theorem

If two parallel lines are cut by a transversal, then the pairs of alternate exterior angles are \_\_\_\_\_.

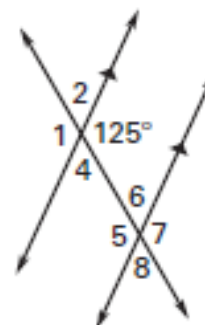


### Consecutive Interior Angles Theorem

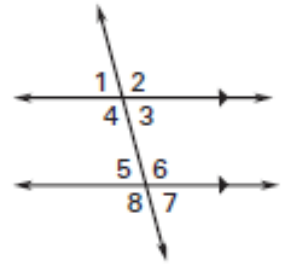
If two parallel lines are cut by a transversal, then the pairs of consecutive interior angles are \_\_\_\_\_.



**Example 1:** The measure of 3 of the numbered angles is  $125^\circ$ . Identify which of the angles are  $125^\circ$ . Give a reason for each.

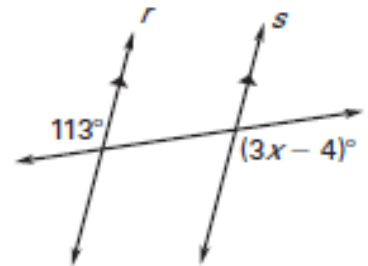


**Example 2:** If  $m\angle 7 = 75^\circ$ , please find  $m\angle 1$ ,  $m\angle 3$ ,  $m\angle 5$ . Give a reason for each.

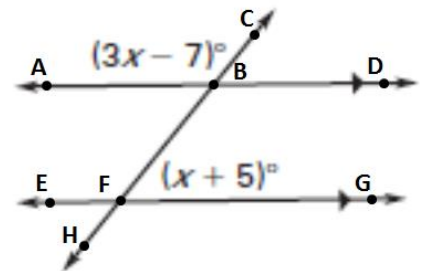


**Example 3:**

a) Find the value of  $x$ . Give a reason for each step when solving.



b) Find the value of  $x$ . Give a reason for each step when solving.



**Example 4:** A taxiway is being constructed that intersects two parallel runways at an airport. You know that  $m\angle 2 = 98^\circ$ . What is  $m\angle 1$ ? How do you know?

