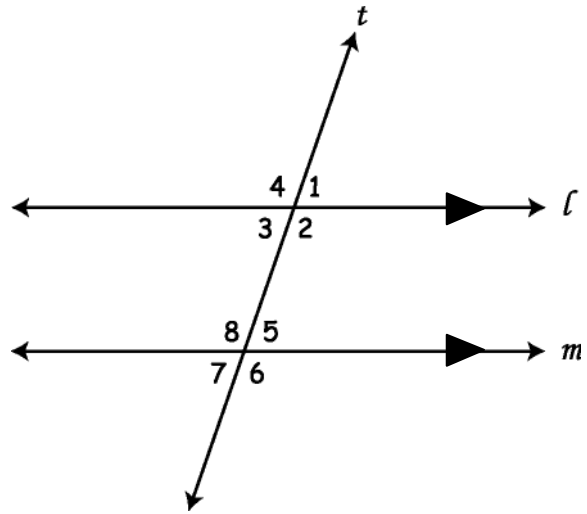


## Parallel Lines and Transversals

Parallel Lines Conjecture -



**Corresponding Angles Conjecture:** If 2 parallel lines are cut by a transversal, then

**Same-Side Interior Angles Conjecture:**

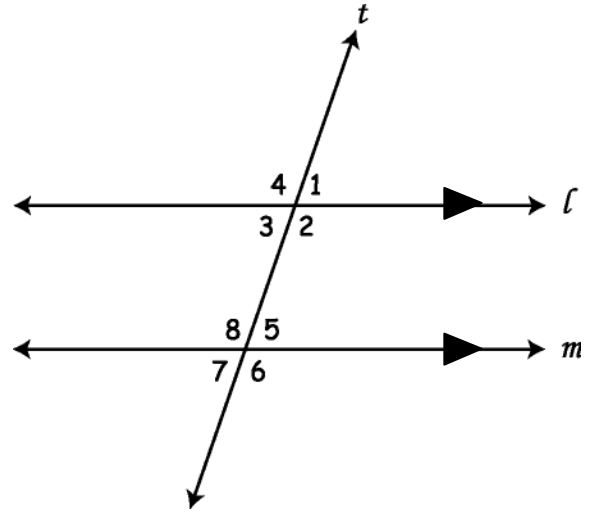
**Same-Side Exterior Angles Conjecture:**

**Alternate Interior Angles Conjecture:**

**Alternate Exterior Angles Conjecture:**

Examples (treat each example independently)

- 1) If  $m\angle 1 = 58^\circ$ , find  $m\angle 5$ .
- 2) If  $m\angle 8 = 106^\circ$ , find  $m\angle 2$ .
- 3) If  $m\angle 1 = 67^\circ$ , find  $m\angle 6$ .
- 4) If  $m\angle 1 = 3x + 7$  and  $m\angle 5 = 4x - 10$ , find  $m\angle 1$ .



- 5) If  $m\angle 1 = 47^\circ$ , find the measures of all other angles.

$m\angle 2 =$  \_\_\_\_\_

$m\angle 6 =$  \_\_\_\_\_

$m\angle 3 =$  \_\_\_\_\_

$m\angle 7 =$  \_\_\_\_\_

$m\angle 4 =$  \_\_\_\_\_

$m\angle 8 =$  \_\_\_\_\_

$m\angle 5 =$  \_\_\_\_\_