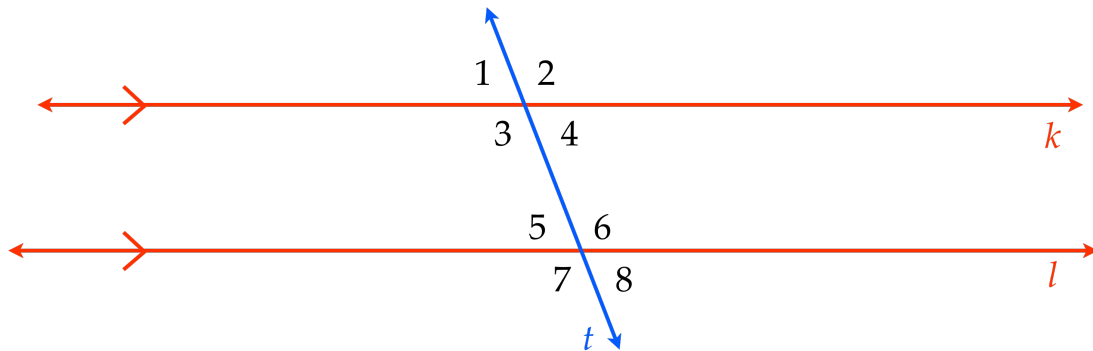
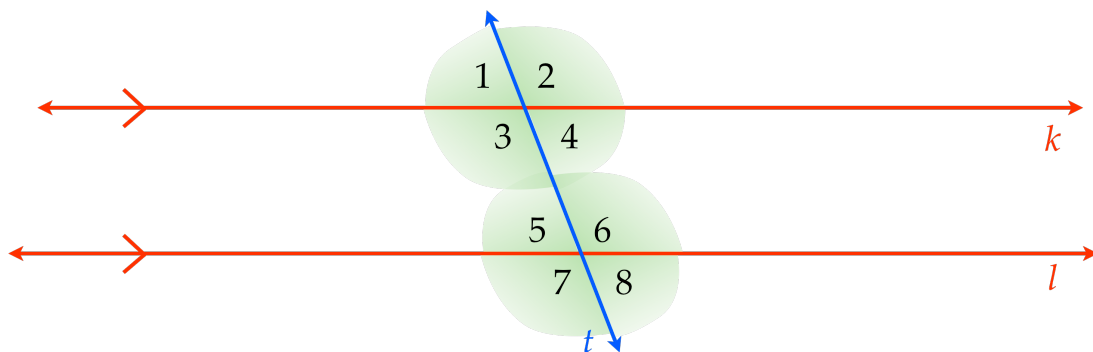


Given **two parallel lines...** with an intersecting **transversal**
eight angles are created



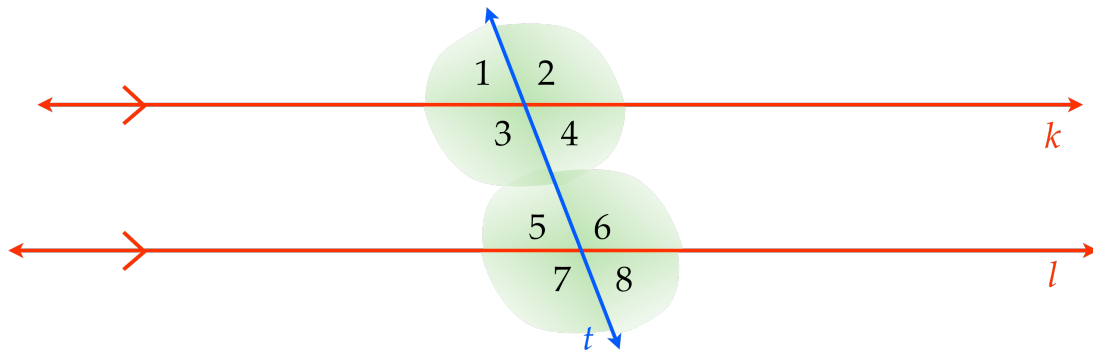
Given **two parallel lines...** with an intersecting **transversal**
Corresponding Angles are congruent.



Corresponding Angles are angles at the same location at each intersection

$\angle 2$ and $\angle 6$ are corresponding angles	$\angle 1$ and $\angle 5$ are corresponding angles
$\angle 3$ and $\angle 7$ are corresponding angles	$\angle 4$ and $\angle 8$ are corresponding angles

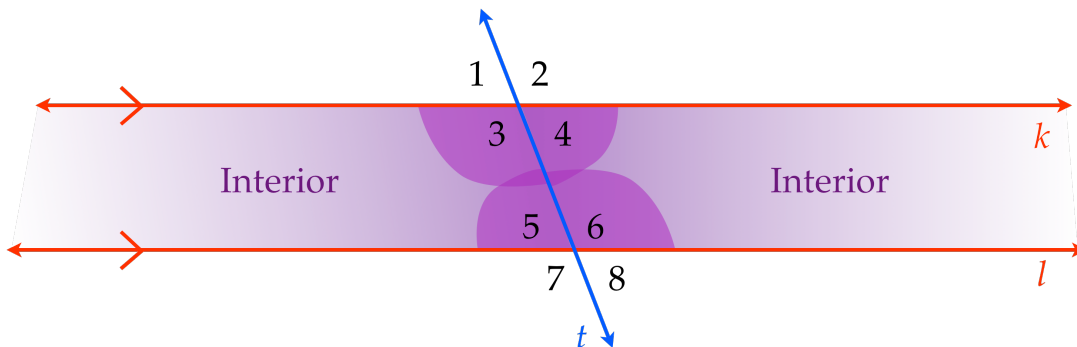
Given **two parallel lines...** with an intersecting **transversal**
Corresponding Angles are congruent.



Corresponding Angles are angles at the same location at each intersection

$$\begin{array}{ll} \angle 2 \cong \angle 6 & \angle 1 \cong \angle 5 \\ \angle 3 \cong \angle 7 & \angle 4 \cong \angle 8 \end{array}$$

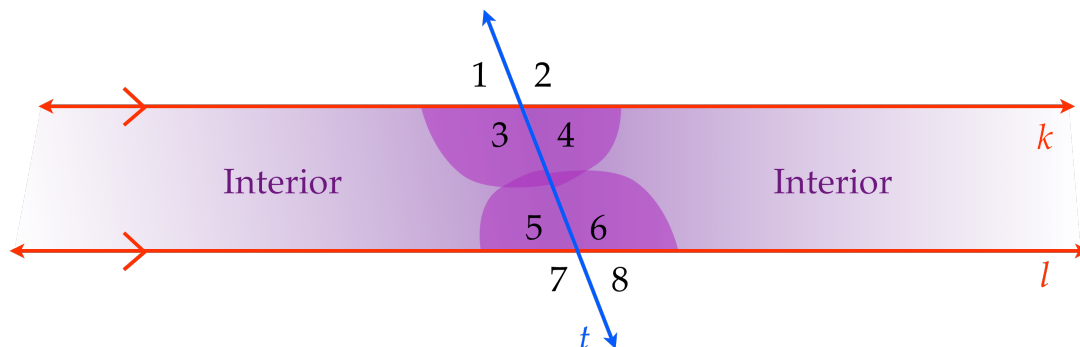
Given **two parallel lines...** with an intersecting **transversal**
 eight angles are created



Alternate Interior Angles are **interior angles** on alternate sides of the transversal.

$\angle 3$ and $\angle 6$ are **alternate interior angles** $\angle 4$ and $\angle 5$ are **alternate interior angles**

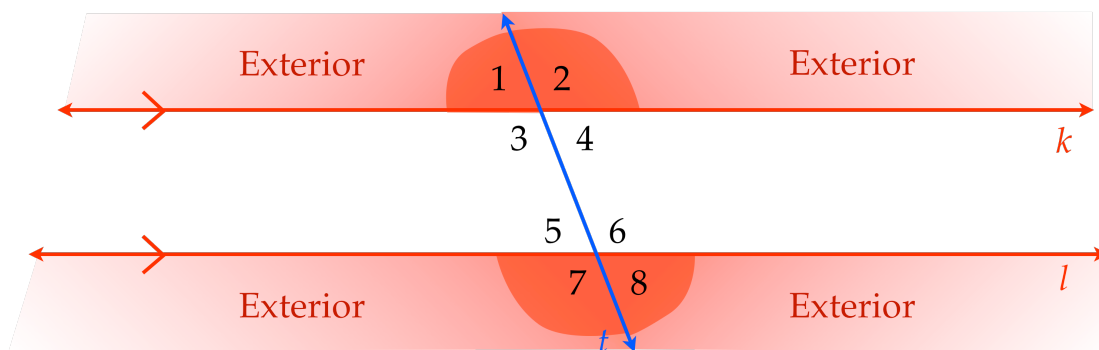
Given **two parallel lines**... with an intersecting **transversal**
Alternate Interior Angles are congruent



Alternate Interior Angles are **interior angles** on alternate sides of the transversal.

$$\angle 3 \cong \angle 6 \quad \angle 4 \cong \angle 5$$

Given **two parallel lines**... with an intersecting **transversal**
Alternate Exterior Angles are congruent

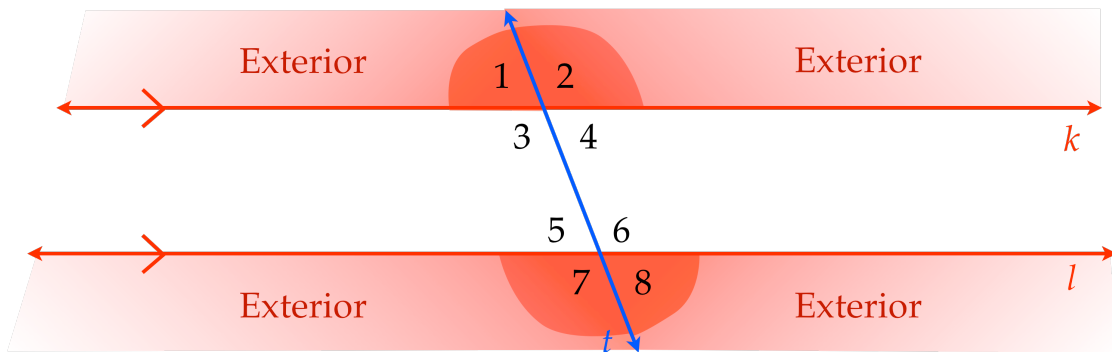


Alternate Exterior Angles are **exterior angles** on alternate sides of the transversal.

$\angle 2$ and $\angle 7$ are **alternate exterior angles** $\angle 1$ and $\angle 8$ are **alternate exterior angles**

Given two parallel lines... with an intersecting transversal

Alternate Exterior Angles are congruent



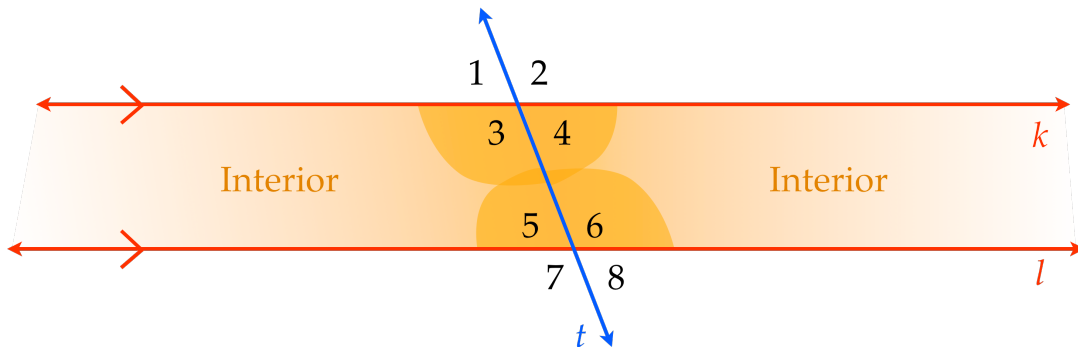
Alternate Exterior Angles are exterior angles on alternate sides of the transversal.

$$\angle 2 \cong \angle 7$$

$$\angle 1 \cong \angle 8$$

Given two parallel lines... with an intersecting transversal

Same Side Interior Angles are supplementary.

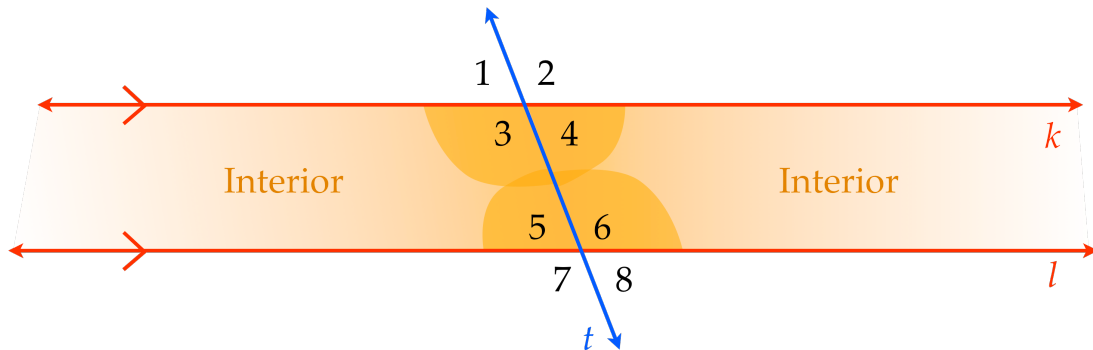


Same Side Interior angles are interior angles on the same side of the transversal.

$\angle 4$ and $\angle 6$ are same side interior angles $\angle 3$ and $\angle 5$ are same side interior angles

Given **two parallel lines...** with an intersecting **transversal**

Same Side Interior Angles are supplementary.



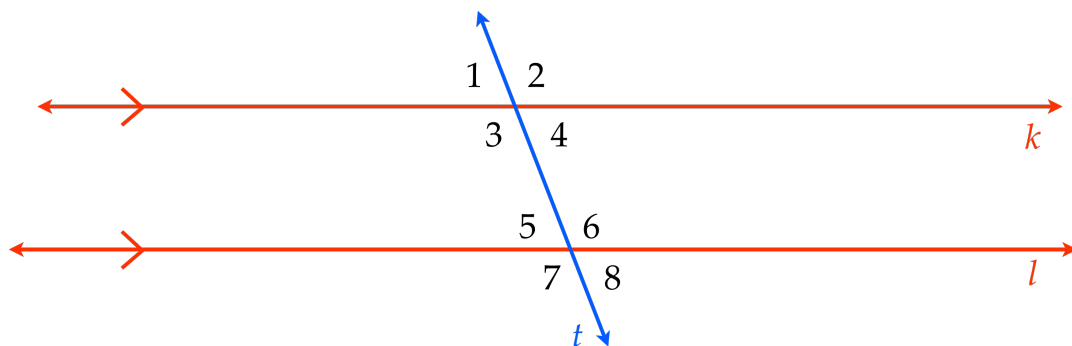
Same Side Interior angles are **interior angles** on the same side of the transversal.

$$m\angle 4 + m\angle 6 = 180^\circ$$

$$m\angle 3 + m\angle 5 = 180^\circ$$

Given **two parallel lines...** with an intersecting **transversal**

eight angles are created



Corresponding Angles are congruent

Alternate Exterior Angles are congruent

Alternate Interior Angles are congruent

Same Side Interior Angles are supplementary