

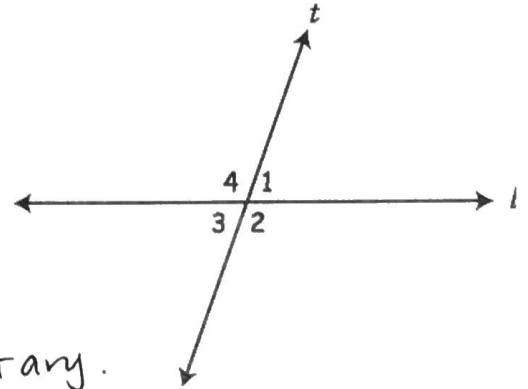
## Lines & Angles

Linear Pair Angles - Angles that are adjacent and Supplementary.

Vertical Angles - Two opposite angles formed by a pair of intersecting lines.

Vertical Angles Conjecture -  
Vertical angles are congruent.

Intersecting Lines Conjecture -  
angles formed by  
intersecting lines are  
either congruent or  
supplementary.



### Congruent Angles

$$\angle 1 + \angle 3$$

$$\angle 2 + \angle 4$$

### Supplementary Angles

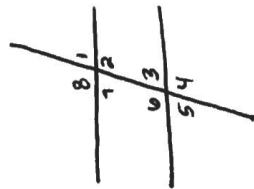
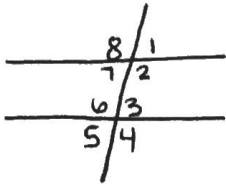
$$\angle 1 + \angle 4$$

$$\angle 1 + \angle 2$$

$$\angle 2 + \angle 3$$

$$\angle 3 + \angle 4$$

## Lines and Transversals



- Interior - Inside the 2 drawn lines
- Exterior - Outside the 2 drawn lines
- Transversal - line that cuts through

### Interior Angles

$$\angle 2 \quad \angle 7$$

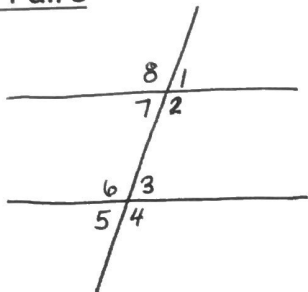
$$\angle 3 \quad \angle 6$$

### Exterior Angles

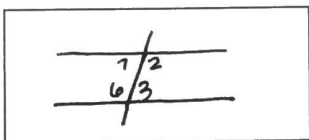
$$\angle 1 \quad \angle 4$$

$$\angle 5 \quad \angle 8$$

Angle Pairs

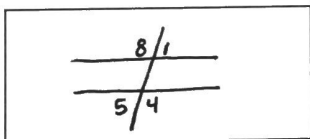


Same-Side Interior Angles -



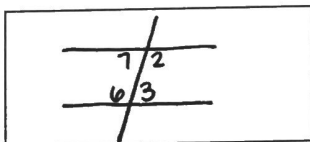
inside the drawn lines  
same-side of the transversal  
supplementary ∠2 and ∠3  
 ∠7 and ∠6

Same-Side Exterior Angles -



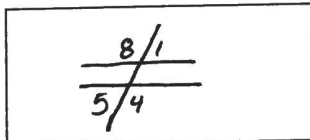
outside the drawn lines  
same-side of the transversal  
supplementary ∠1 and ∠4  
 ∠8 and ∠5

Alternate Interior Angles -



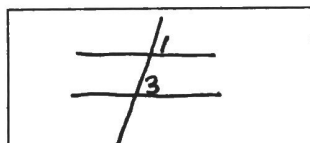
inside the drawn lines  
opposite sides of the transversal  
congruent ∠2 and ∠6  
 ∠3 and ∠7

Alternate Exterior Angles -



outside the drawn lines  
opposite sides of the transversal  
congruent ∠1 and ∠5  
 ∠4 and ∠8

Corresponding Angles -



one interior, one exterior angle  
same-side of transversal  
congruent ∠1 and ∠3  
 ∠2 and ∠4  
 ∠8 and ∠6  
 ∠7 and ∠5