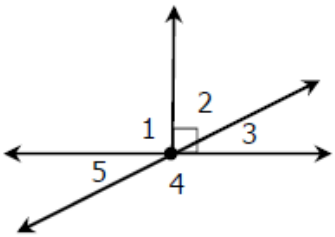
Do Now



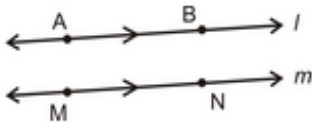
Using the diagram, classify each angle pair using **ALL** names that apply.

1. $\angle 2 \& \angle 3$ Adjacent Complementary
2. $\angle 1 \& \angle 5$ Adjacent
3. $\angle 1 \& \angle 2$ Adjacent
4. $\angle 3 \& \angle 4$ Supplementary Adjacent
5. $\angle 3 \& \angle 5$ Vertical
6. $\angle 4 \& \angle 5$ Supplementary Adjacent

Jan 12-10:52 AM

Parallel Lines

- Two lines that never intersect
- Arrows on lines indicate that they are parallel

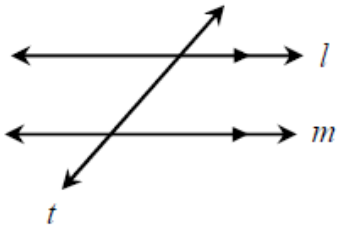


$\ell \parallel m$

Jan 12-11:05 AM

Transversal

- a line that intersects two or more lines $l \parallel m$ and the transversal is $\overline{t}$



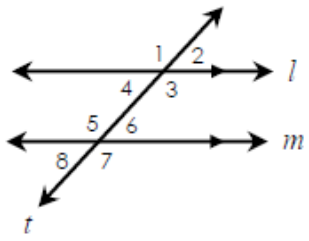
Jan 12-11:16 AM

Corresponding Angles

- are in the same position on the parallel lines in relation to the transversal
- These angles are always congruent

$\angle 1 \cong \angle 5$ $\angle 2 \cong \angle 6$

$\angle 4 \cong \angle 8$ $\angle 3 \cong \angle 7$

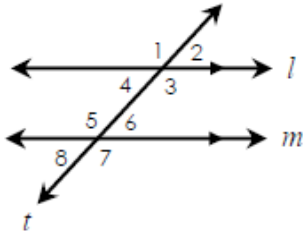


Jan 12-1:45 PM

Alternate Interior Angles

- are inside the parallel lines and on opposite sides of the transversal
- These angles are always congruent

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

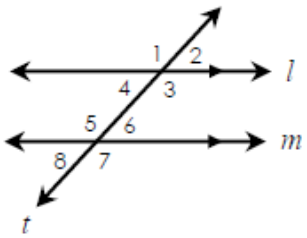


Jan 12-1:45 PM

Alternate Exterior Angles

- are outside the parallel lines and on opposite sides of the transversal
- These angles are always congruent

$\angle 1 \cong \angle 7$ $\angle 2 \cong \angle 8$



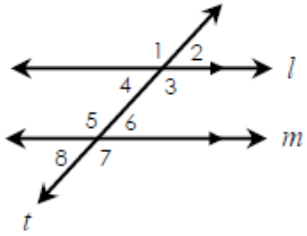
Jan 12-1:45 PM

Consecutive Interior Angles

- are inside the parallel lines and on the same side of the transversal
- These angles are supplementary

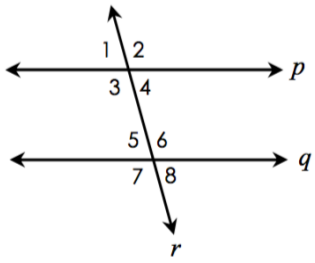
$\angle 4 + \angle 5 = 180°$

$\angle 3 + \angle 6 = 180°$



Jan 12-1:45 PM

Given $p \parallel q$ Classify each angle pair & state whether are congruent or supplementary



1) $\angle 4$ and $\angle 5$ Alternate interior Congruent

2) $\angle 1$ and $\angle 8$ Alternate exterior Congruent

3) $\angle 2$ and $\angle 4$ Adjacent Supplementary

4) $\angle 3$ and $\angle 5$ Consecutive interior Supplementary

5) $\angle 4$ and $\angle 1$ Vertical Congruent

6) $\angle 7$ and $\angle 8$ Adjacent Supplementary

7) $\angle 8$ and $\angle 5$ Vertical Congruent

8) $\angle 1$ and $\angle 5$ Corresponding Congruent

9) $\angle 4$ and $\angle 5$ Alternate Interior Congruent

10) $\angle 3$ and $\angle 6$ Alternate Interior Congruent

Jan 14-9:42 AM