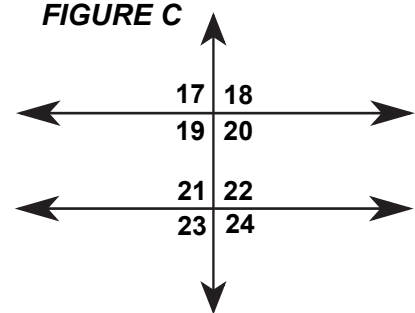
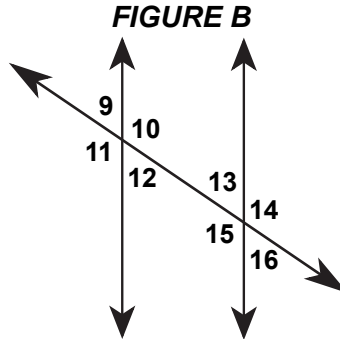
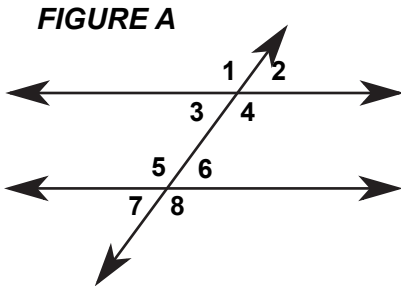


MathFLIX CHALLENGE

Angles formed by Parallel Lines and Transversals

A **postulate** is an accepted statement of fact. Study the figures below then read three postulates to complete the tables. Begin by coloring the parallel lines in the three figures blue and the transversal lines red.



Postulate #1 If two parallel lines are cut by a transversal, the corresponding angles are congruent. Study the figures above and complete each table.

FIGURE A

$\angle 1 \cong$	$\angle 5$
$\angle 3 \cong$	$\angle 7$
$\angle 8 \cong$	
$\angle 2 \cong$	

FIGURE B

$\angle 9 \cong$	$\angle 13$
$\angle 11 \cong$	
$\angle 12 \cong$	
\angle	\cong

FIGURE C

$\angle 17 \cong$	$\angle 21$
$\angle 19 \cong$	
$\angle 18 \cong$	
\angle	\cong

Postulate #2. If two parallel lines are cut by a transversal, the alternate interior angles are congruent. Study the figures above and complete each table.

FIGURE A

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

FIGURE B

$\angle 10 \cong$	$\angle 15$
\angle	\angle

FIGURE C

$\angle 19 \cong$	$\angle 22$
\angle	\angle

Postulate #3. If two parallel lines are cut by a transversal, the pairs of same-side interior angles are supplementary. Study the figures above and complete each table.

FIGURE A

$\angle 3 + \angle 5 = 180^\circ$
$\angle 4 + \angle = 180^\circ$

FIGURE B

$\angle 12 + \angle 15 = 180^\circ$
$\angle + \angle = 180^\circ$

FIGURE C

$\angle 20 + \angle 22 = 180^\circ$
$\angle + \angle = 180^\circ$