

| Corresponding Angles Postulate | Corresponding Angles Converse Postulate |
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| If two lines ( $m$ and $n$ ) cut by a transversal $(p)$ are parallel then the corresponding angles are congruent. $m \\| n \Rightarrow \angle 1 \cong \angle 5$ | If two lines ( $m$ and $n$ ) are cut by a transversal ( $p$ ) and the corresponding angles are congruent then the lines ( $m$ and $n$ ) are parallel $\angle 1 \cong \angle 5 \Rightarrow m \\| n$ |
| Alternate Interior Angles Theorem | Alternate Interior Angles Converse Theorem |
| If two lines ( $m$ and $n$ ) cut by a transversal $(p)$ are parallel then the alternate interior angles are congruent. $m \\| n \Rightarrow \angle 2 \cong \angle 8$ | If two lines ( $m$ and $n$ ) are cut by a transversal ( $p$ ) and the corresponding angles are congruent then the lines ( $m$ and $n$ ) are parallel $\angle 2 \cong \angle 8 \Rightarrow m \\| n$ |
| Consecutive (Same Side) Interior Angles Theorem | Consecutive (Same Side) Interior Angles Converse Theorem |
| If two lines ( $m$ and $n$ ) cut by a transversal $(p)$ are parallel then the consecutive (same side) interior angles are supplementary. $m \\| n \Rightarrow m \angle 2+m \angle 5$ | If two lines ( $m$ and $n$ ) are cut by a transversal ( $p$ ) and the corresponding angles are congruent then the lines ( $m$ and $n$ ) are parallel $m \angle 2+m \angle 5=180^{\circ} \Rightarrow m \\| n$ |
| Alternate Exterior Angles Theorem | Alternate Exterior Angles Converse Theorem |
| If two lines ( $m$ and $n$ ) cut by a transversal ( $p$ ) are parallel then the alternate exterior angles are congruent. $m \\| n \Rightarrow \angle 4 \cong \angle 6$ | If two lines ( $m$ and $n$ ) are cut by a transversal ( $p$ ) and the alternate exterior angles are congruent then the lines ( $m$ and $n$ ) are parallel $\angle 4 \cong \angle 6 \Rightarrow m \\| n$ |



