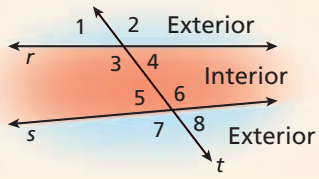


3-1 Lines and Angles

Angle Pairs Formed by a Transversal

TERM	EXAMPLE
<p>A transversal is a line that intersects two coplanar lines at two different points. The transversal t and the other two lines r and s form eight angles.</p>	
<p>Corresponding angles lie on the same side of the transversal t, on the same sides of lines r and s.</p>	<p>$\angle 1$ and $\angle 5$</p>
<p>Alternate interior angles are nonadjacent angles that lie on opposite sides of the transversal t, between lines r and s.</p>	<p>$\angle 3$ and $\angle 6$</p>
<p>Alternate exterior angles lie on opposite sides of the transversal t, outside lines r and s.</p>	<p>$\angle 1$ and $\angle 8$</p>
<p>Same-side interior angles or <i>consecutive interior angles</i> lie on the same side of the transversal t, between lines r and s.</p>	<p>$\angle 3$ and $\angle 5$</p>

3-1

Lines and Angles (continued)

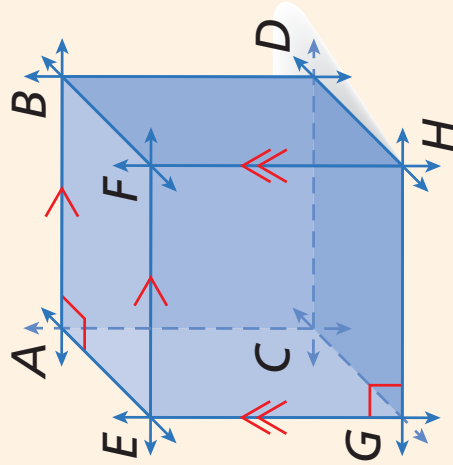
Parallel, Perpendicular, and Skew Lines

Parallel lines (\parallel) are coplanar and do not intersect. In the figure, $\overleftrightarrow{AB} \parallel \overleftrightarrow{EF}$, and $\overleftrightarrow{EG} \parallel \overleftrightarrow{FH}$.

Perpendicular lines (\perp) intersect at 90° angles. In the figure, $\overleftrightarrow{AB} \perp \overleftrightarrow{AE}$, and $\overleftrightarrow{EG} \perp \overleftrightarrow{GH}$.

Skew lines are not coplanar. Skew lines are not parallel and do not intersect. In the figure, \overleftrightarrow{AB} and \overleftrightarrow{EG} are skew.

Parallel planes are planes that do not intersect. In the figure, plane $ABE \parallel$ plane CDG .



Arrows are used to show that $\overleftrightarrow{AB} \parallel \overleftrightarrow{EF}$ and $\overleftrightarrow{EG} \parallel \overleftrightarrow{FH}$.