

Parallel Lines and Transversals

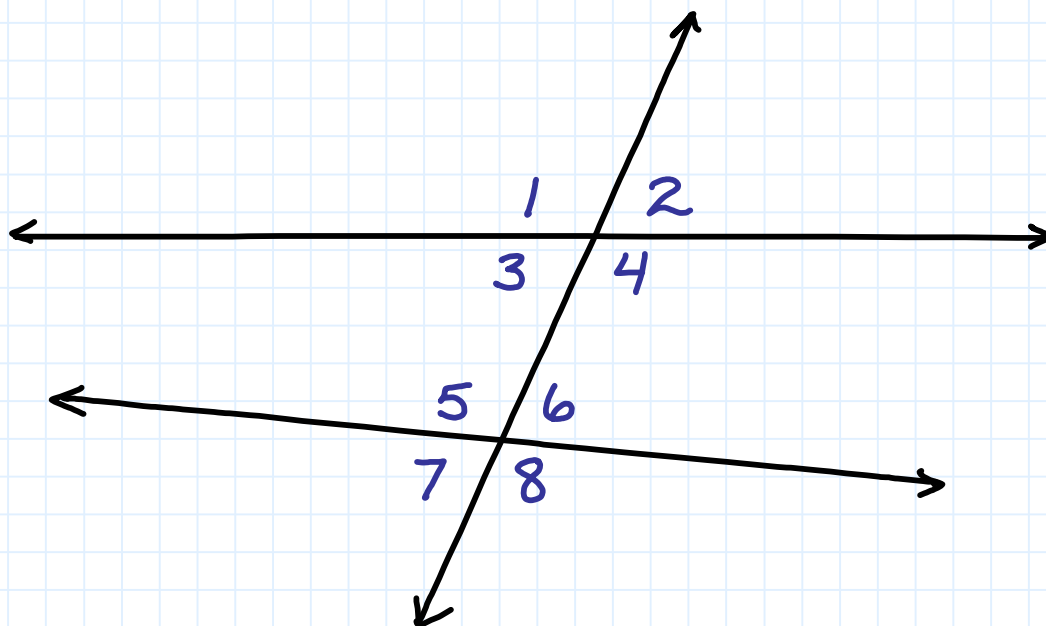


Overview of problems



Example Set: A

Classify each pair of angles as alternate interior, same-side interior, corresponding angles or a other angle relationship



$\angle 3$ and $\angle 5$

$\angle 4$ and $\angle 6$

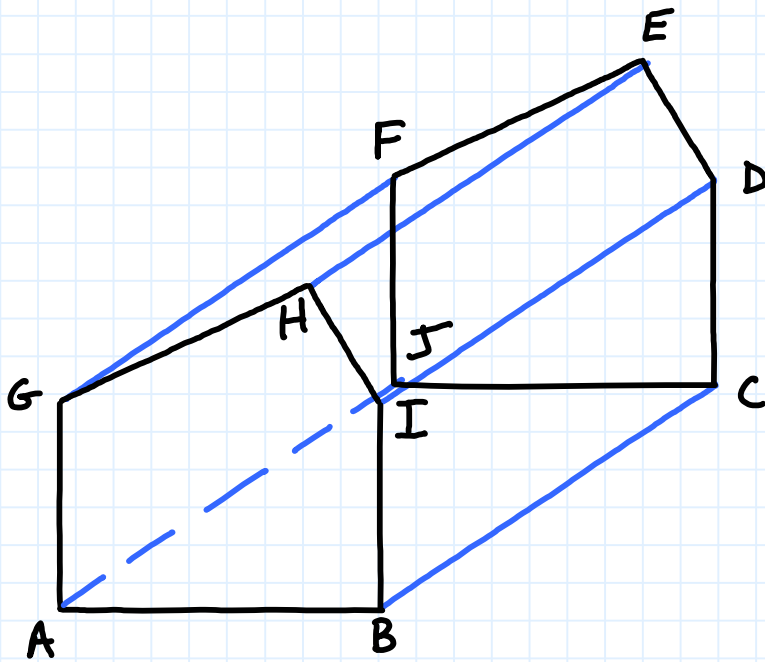
$\angle 2$ and $\angle 6$

$\angle 3$ and $\angle 2$

$\angle 3$ and $\angle 7$

$\angle 7$ and $\angle 8$

Classify each pair of lines as intersecting, parallel or skew



\overleftrightarrow{AB} and \overleftrightarrow{BC}

\overleftrightarrow{AJ} and \overleftrightarrow{HE}

\overleftrightarrow{IB} and \overleftrightarrow{DC}

\overleftrightarrow{GA} and \overleftrightarrow{ED}

\overleftrightarrow{EH} and \overleftrightarrow{HI}



Example Set: B

Determine if the statements are true, false or not enough information given to answer question.

Skew lines can be parallel?

A transversal is a special type of coplanar line?

Vertical angles are equal?

Planes that never intersect are skew planes?

Alternate interior angles are always on the opposite side of a transversal?

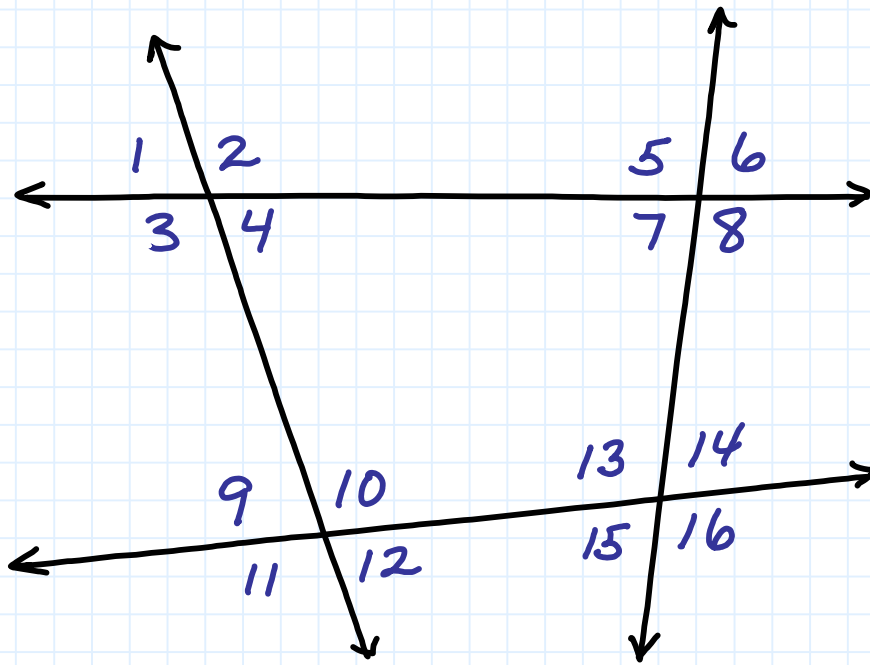
Five lines intersecting in one point are coplanar?

Two lines parallel to a third line must be parallel to each other?



Example Set: C

Classify each pair of angles as alternate interior, same-side interior, corresponding angles or no relationship



$\angle 9$ and $\angle 12$

$\angle 3$ and $\angle 9$

$\angle 8$ and $\angle 13$

$\angle 2$ and $\angle 10$

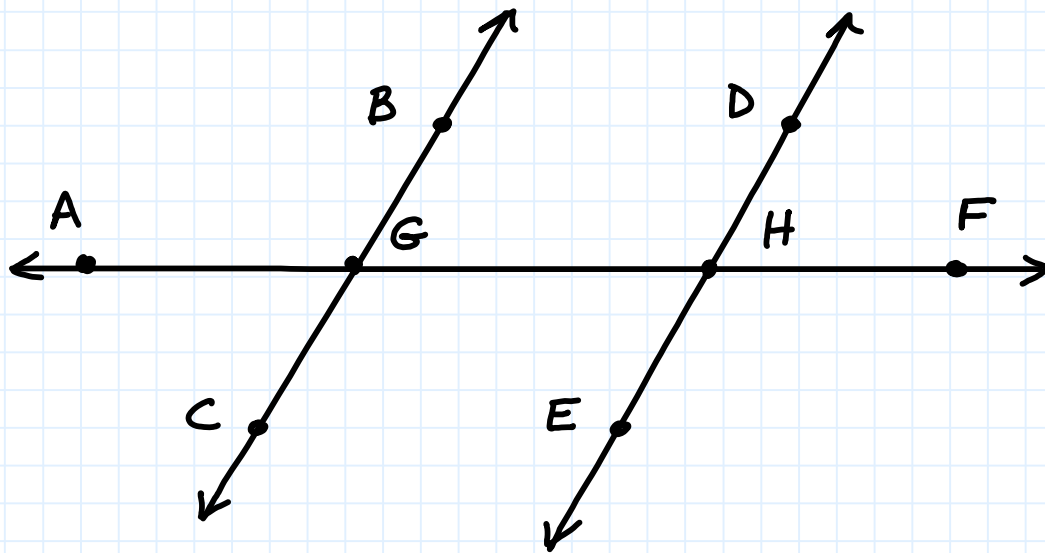
$\angle 5$ and $\angle 6$

$\angle 4$ and $\angle 12$

$\angle 7$ and $\angle 13$

$\angle 11$ and $\angle 15$

Describe the angle pairs



$\angle AGB$ and $\angle GHD$

$\angle BGH$ and $\angle GHE$

$\angle DHF$ and $\angle EHG$

$\angle CGH$ and $\angle EHF$

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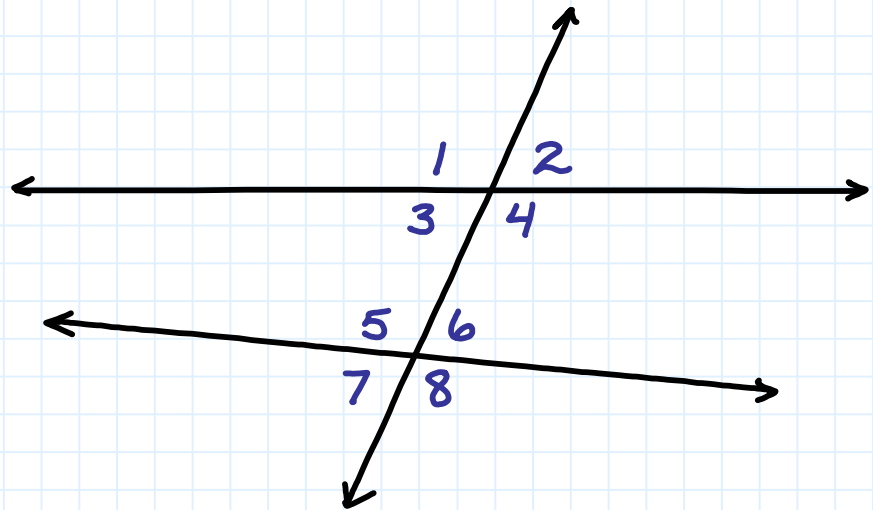


Overview of problems- KEY



Example Set: A

Classify each pair of angles as alternate interior, same-side interior, corresponding angles or a other angle relationship



$\angle 3$ and $\angle 5$
SSIA

$\angle 4$ and $\angle 6$
SSIA

$\angle 2$ and $\angle 6$ CA

$\angle 3$ and $\angle 2$ VA

$\angle 3$ and $\angle 7$ CA

$\angle 7$ and $\angle 8$ Suplem.
 \angle 's



Example Set: B

Determine if the statements are true, false or not enough information given to answer question.

Skew lines can be parallel? F

A transversal is a special type of coplanar line? T

Vertical angles are equal? T

Planes that never intersect are skew planes? F

Alternate interior angles are always on the opposite side of a transversal? T

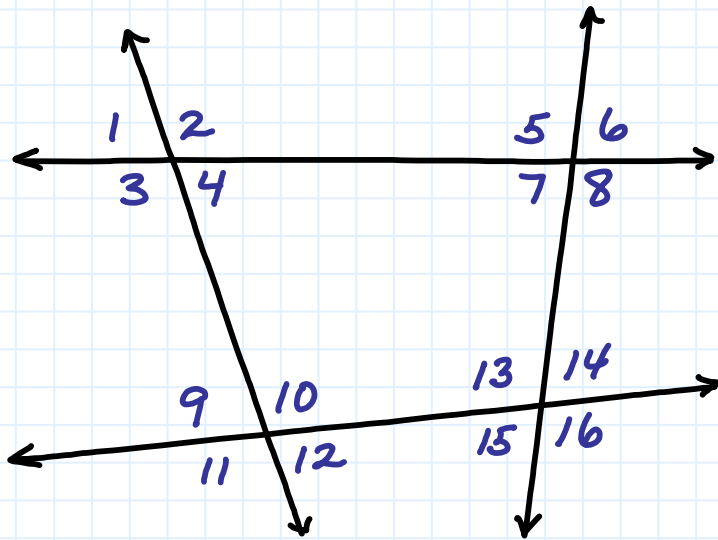
Five lines intersecting in one point are coplanar? T

Two lines parallel to a third line must be parallel to each other? T



Example Set: C

Classify each pair of angles as alternate interior, same-side interior, corresponding angles or no relationship



$\angle 9$ and $\angle 12$ VA

$\angle 5$ and $\angle 6$ SA

$\angle 3$ and $\angle 9$ SSIA

$\angle 4$ and $\angle 12$ CA

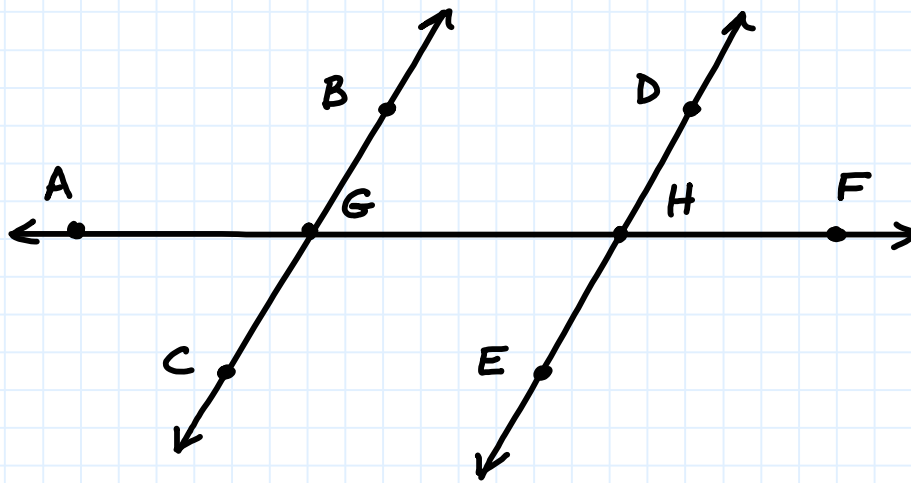
$\angle 8$ and $\angle 13$ AIA

$\angle 7$ and $\angle 13$ SSIA

$\angle 2$ and $\angle 10$ CA

$\angle 11$ and $\angle 15$ CA

Describe the angle pairs



$\angle AGB$ and $\angle GHD$ CA

$\angle BGH$ and $\angle GHE$ AIA

$\angle DHF$ and $\angle EHG$ VA

$\angle CGH$ and $\angle EHF$ CA