

Objective:

I can identify parallel lines, skew lines, transversals, alternate interior angles, alternate exterior angles, corresponding angles and consecutive interior angles.

Parallel Lines- Two lines in the same plane that do not intersect.

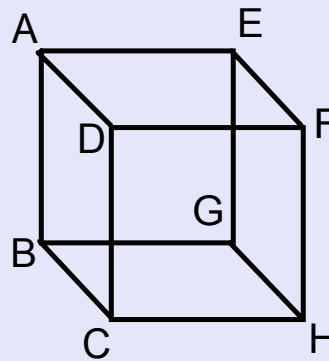
Skew Lines - Two lines **not** in the same plane that do not intersect.

Parallel

$\overline{AD} \parallel \overline{EF}$
 $\overline{BC} \parallel \overline{GH}$
 $\overline{DF} \parallel \overline{CH}$

Skew

$\overline{AD} \nparallel \overline{FH}$
 $\overline{BG}, \overline{FH}$
 $\overline{EF}, \overline{CH}$





Vocabulary



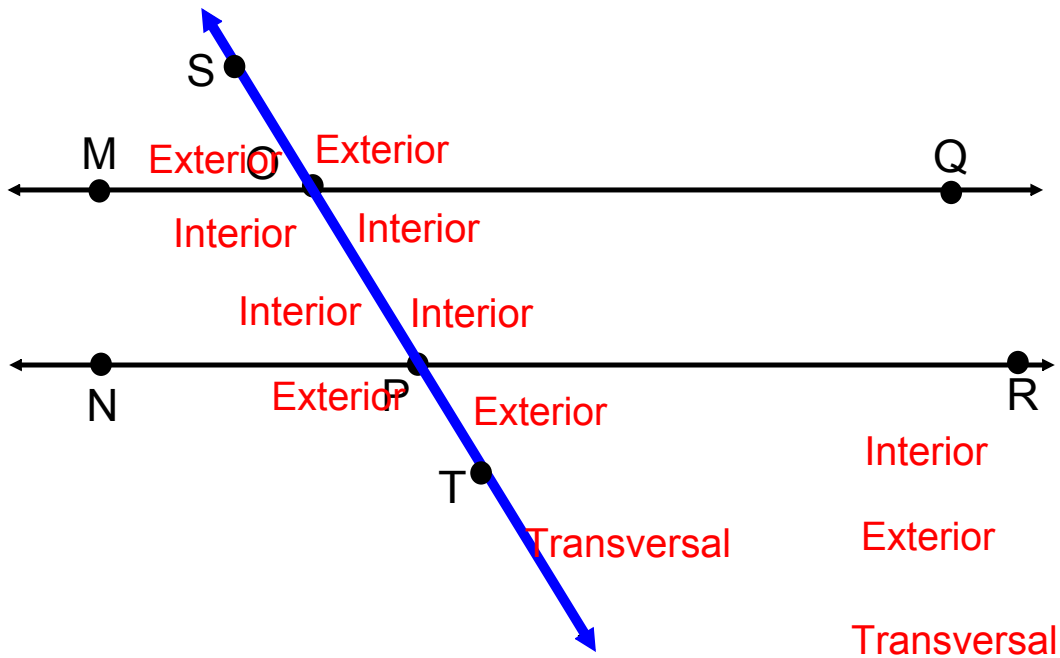
Transversal: a line that intersects two parallel lines

Interior Angles: Formed on the inside of two lines cut by a transversal

Exterior Angles: Formed on the outside of two lines cut by a transversal.



Identify interior, exterior, and transversal



1 Which of the following statements is false?

A A transversal is a line.

B A transversal must intersect at least two lines.

C The lines the transversal intersects must be parallel to each other.

D The lines a transversal intersects can be perpendicular to each other.



Vocabulary



Alternate interior angles: interior angles on opposite sides of the transversal-not adjacent

Consecutive Interior angles: interior angles on same side of the transversal.

Alternate exterior angles: exterior angles on opposite sides of the transversal-not adjacent

Corresponding Angles: One interior and one exterior angle formed on the same side of the transversal

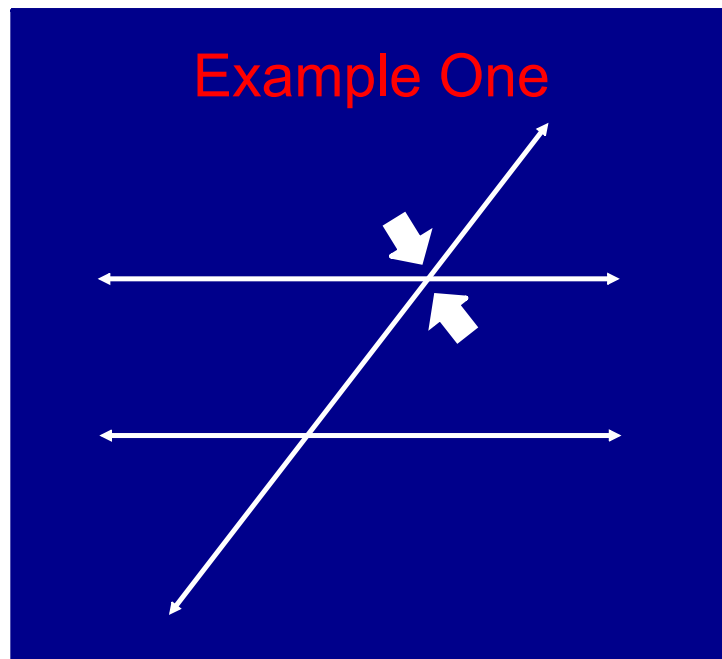


More with Vertical Angles

Example Two

Example Three

Example Four



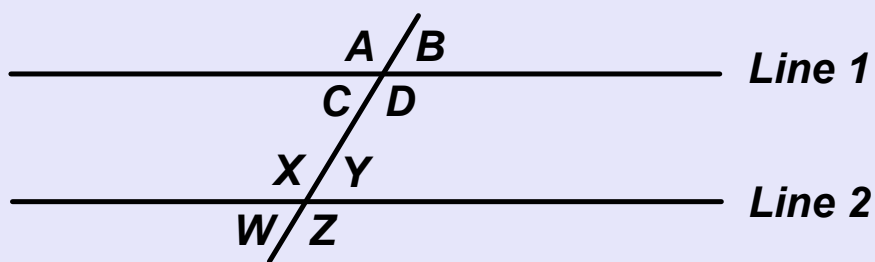
2 Form a pair of vertical angles using W.
Which angle completes the pair?

A X

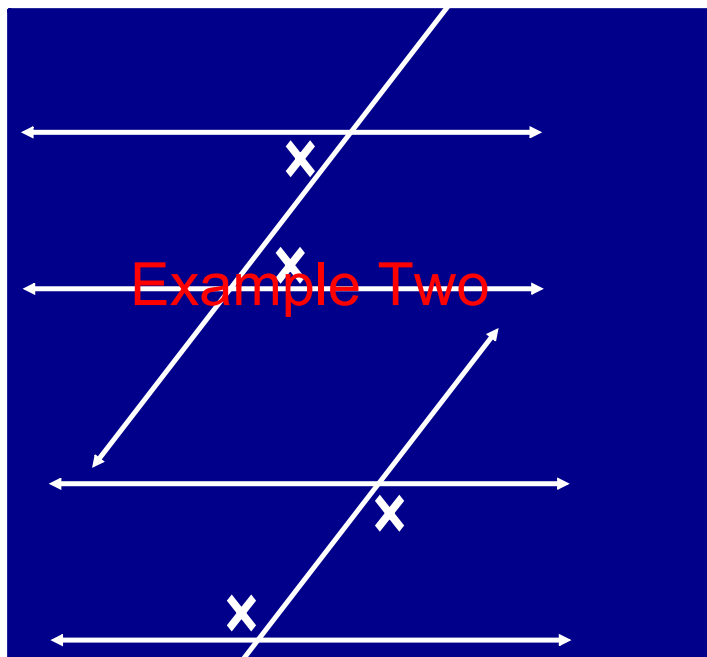
B C

C Z

D Y



More with Alternate Exterior Angles



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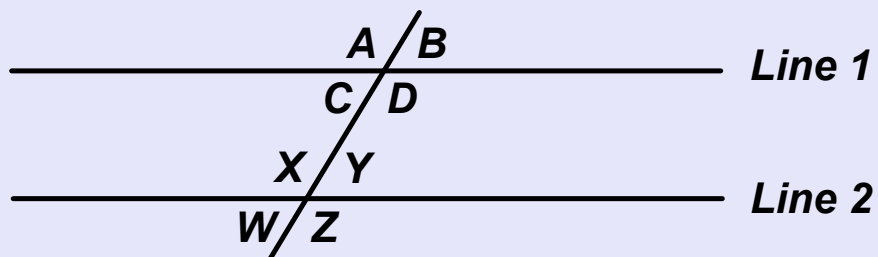
3 Which angle forms a pair of alternate interiors with $\angle C$?

A X

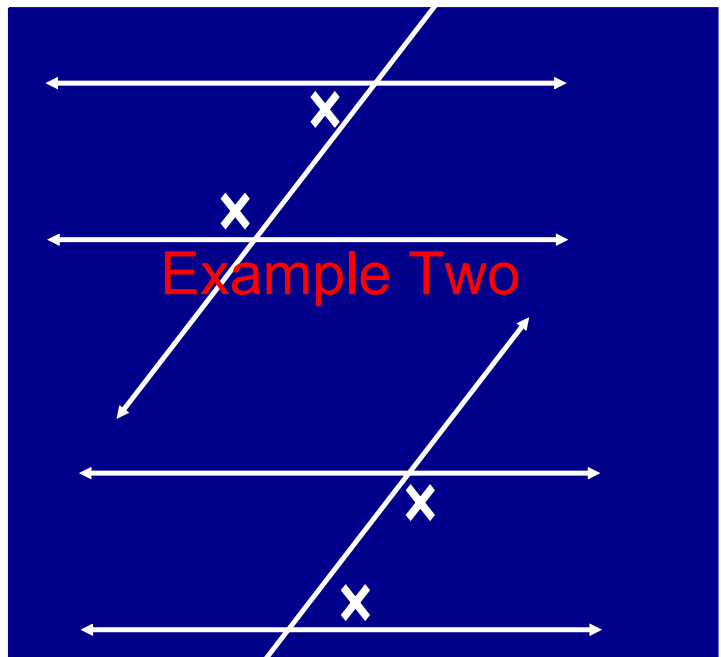
B D

C Y

D W



More with Same Side (Consecutive Interior) Angles **Example One**



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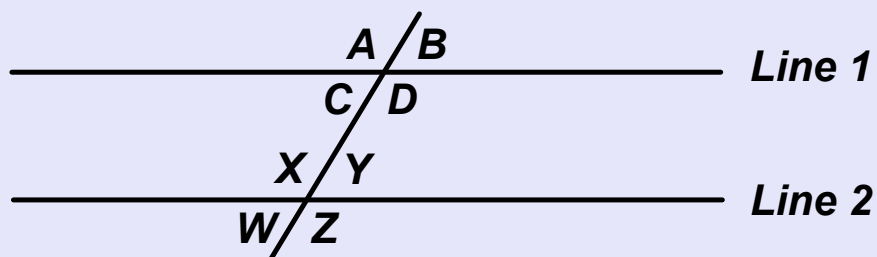
4 Which angle forms a pair of consecutive interior angles with $\angle C$?

A X

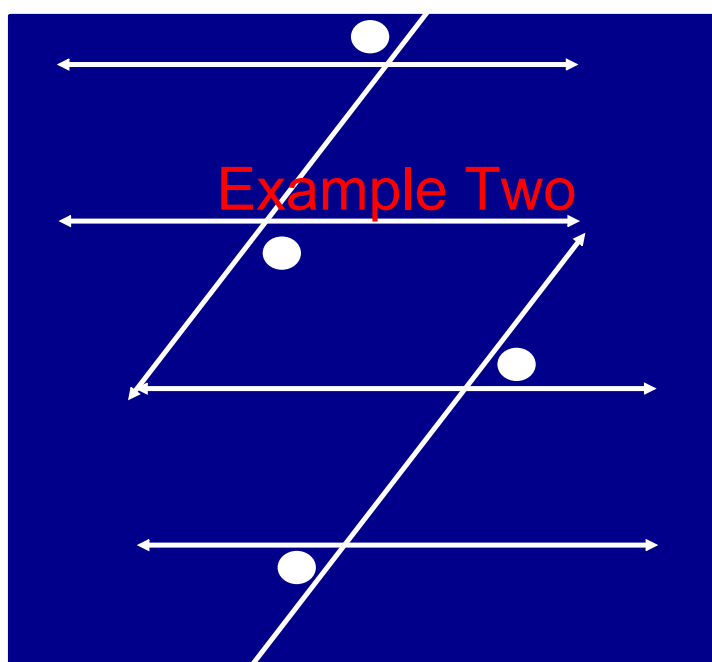
B D

C W

D Y



Example One
More with Alternate Exterior Angles



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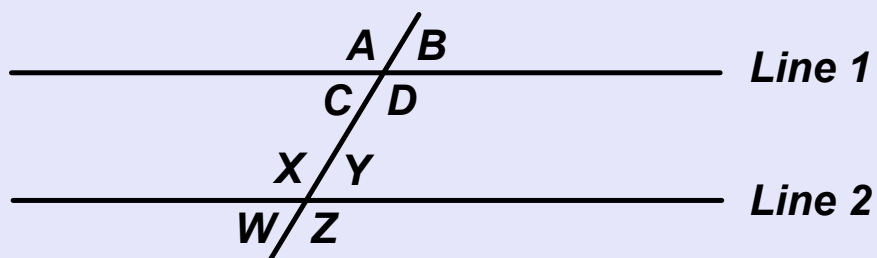
5 Which angle forms a pair of Alternate Exterior Angles with $\angle A$?

A X

B B

C W

D Z

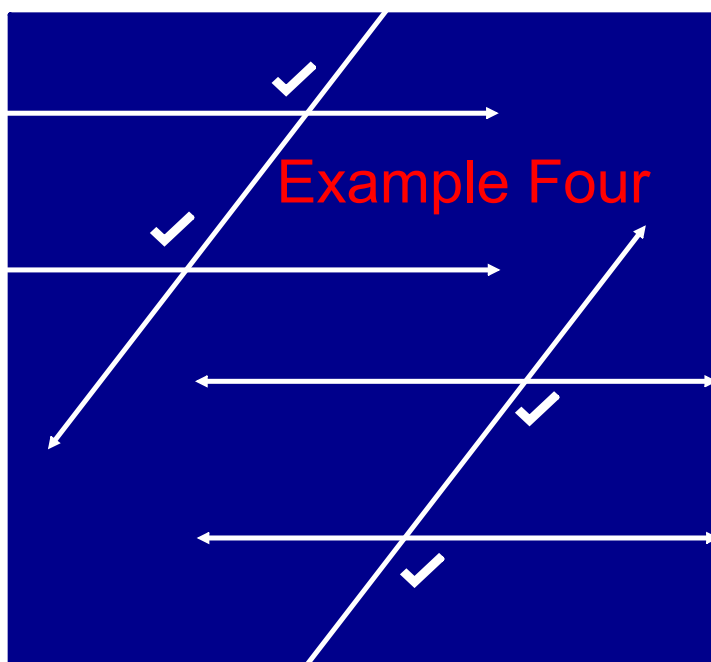


More with Corresponding Angles

Example One

Example Two

Example Three



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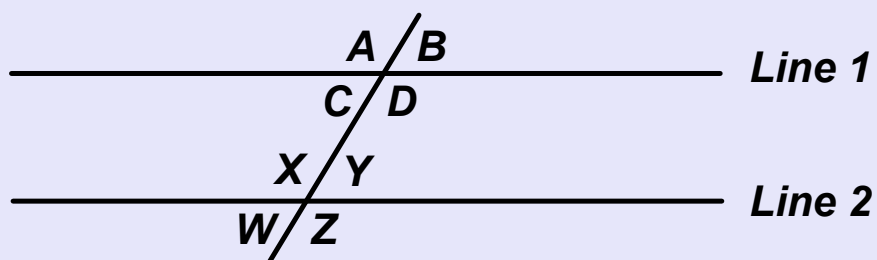
6 Which angle forms a pair of corresponding angles with $\angle A$?

A X

B B

C W

D Z



Label alternate interior, alternate exterior, corresponding, vertical, supplementary angles

