Geom

3-1 Parallel Lines & Transversals

Parallel Lines:

* Lines in the same plane that never intersect.

Parallel Planes:

* Planes that never intersect.

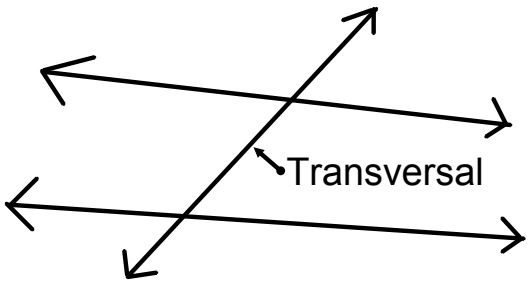
* Examples: ceiling & floor, front wall & wall

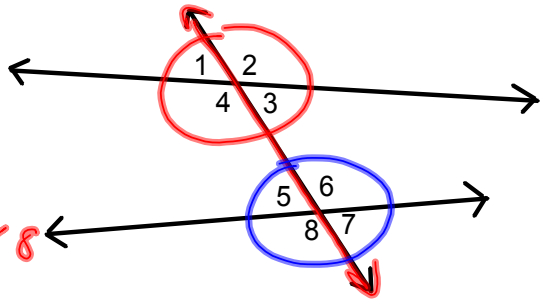
Skew Lines:

* Lines that do not intersect and are not coplanar (in the same plane).

Transversal:

* A line that intersects two or more lines in a plane at different points.





exterior angles: ∠1, ∠2, ∠7, ∠8

interior angles: ∠3, ∠4, ∠5, ∠6

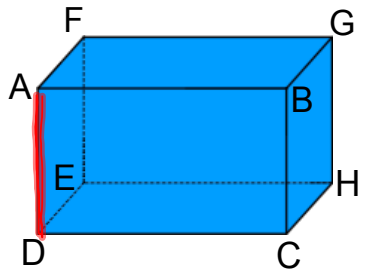
consecutive interior angles: ∠4 & ∠5, ∠3 & ∠6
(same side of transversal)

alternate interior angles: ∠4 & ∠6, ∠3 & ∠5

alternate exterior angle: ∠2 & ∠8, ∠1 & ∠7

corresponding angles: ∠1 & ∠5, ∠2 & ∠6, ∠3 & ∠7, ∠4 & ∠8

1. Use Example 1 on page 127:



a. Name all planes that are parallel to plane AEF. plane GBC

b. Name all segments that intersect segment AF. $\overline{AB}, \overline{FG}, \overline{AD}, \overline{FE}$

c. Name all segments parallel to segment DC. $\overline{EH}, \overline{AB}, \overline{FG}$

d. Name all segments that are skew to segment AD. $\overline{FG}, \overline{EH}, \overline{GB}, \overline{CH}$

2. Use Example 3 on pg. 128. Identify each pair of angles as *alternate interior*, *alternate exterior, corresponding*, or *consecutive interior angles.*

a. angles 7 and 3

b. angles 8 and 2

c. angles 4 and 11

d. angles 7 and 1

e. angles 3 and 9

f. angles 7 and 10