

§2.6: Conjectures about || lines

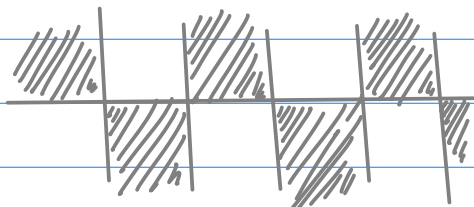
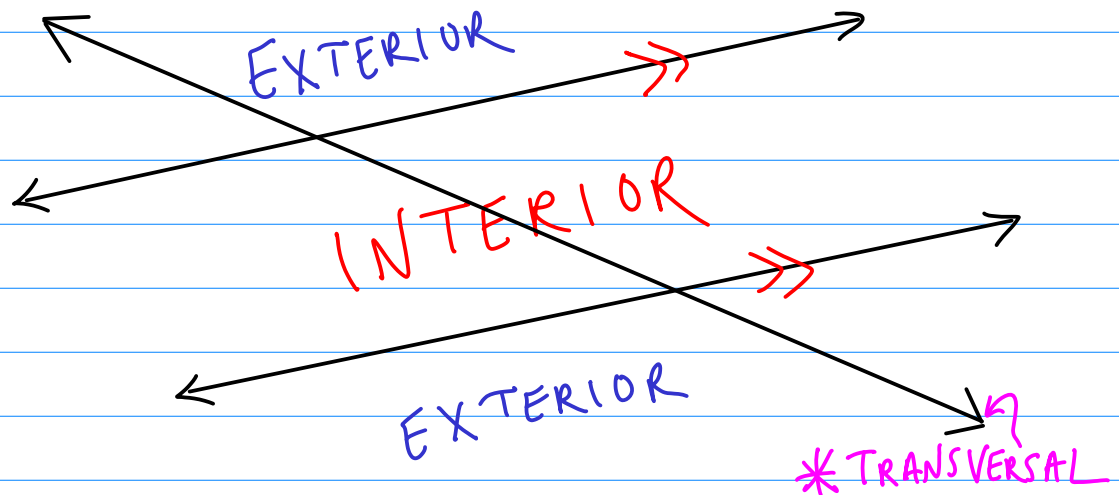
* Implication: If-then statement

Ex: If Tyeshia eats too much, then she is sleepy.
e \longrightarrow S T

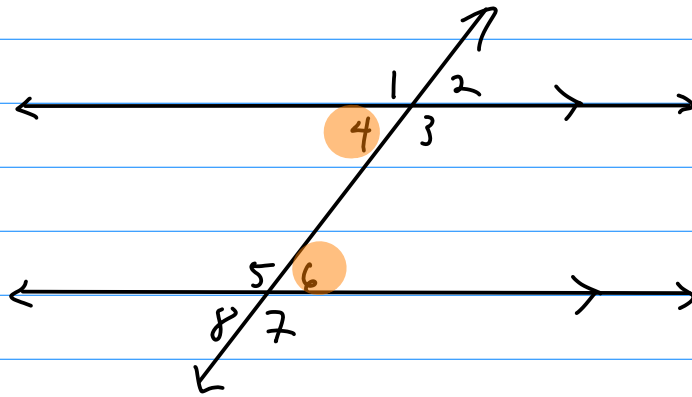
* Converse: reversal of an implication

Ex: If Tyeshia is sleepy, then she ate too much.
S \longrightarrow e F

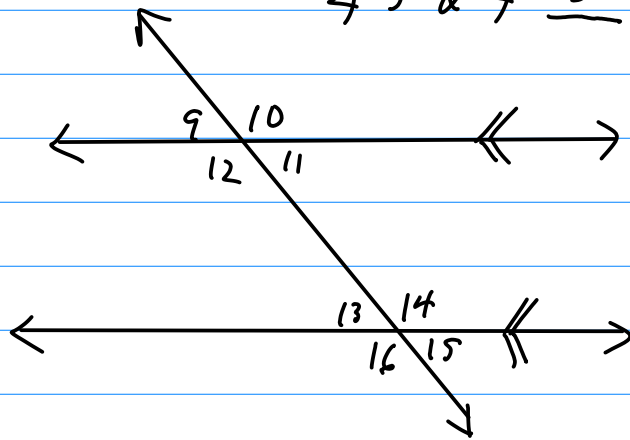
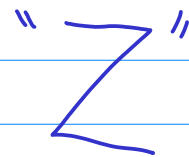
• Naming \angle 's associated with || lines:



Alternating
Pattern



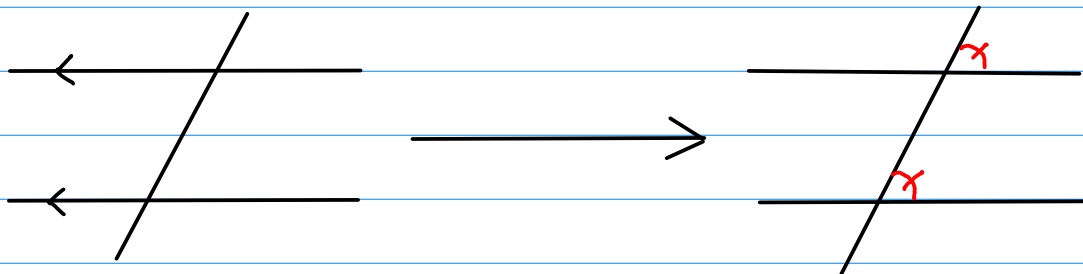
* Alternate Interior \angle 's: $\angle 4$ & $\angle 6$
 $\angle 3$ & $\angle 5$



* Corresponding \angle 's: $\angle 11$ & $\angle 15$; $\angle 16$ & $\angle 12$
 $\angle 10$ & $\angle 14$; $\angle 9$ & $\angle 13$

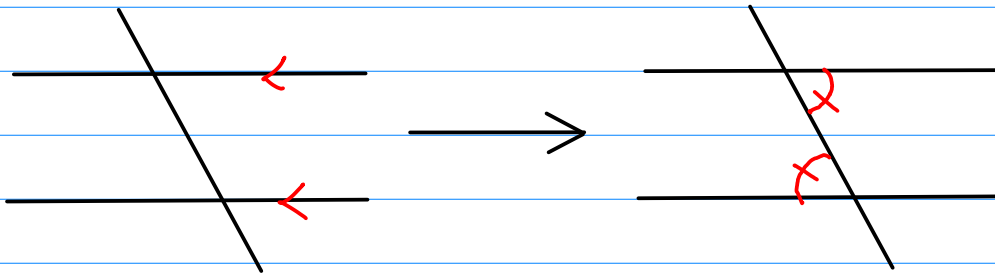
"looking in the same direction"

* Corresponding \angle 's Conjecture: If 2 \parallel lines are cut by a transversal, then corr. \angle 's are \cong .

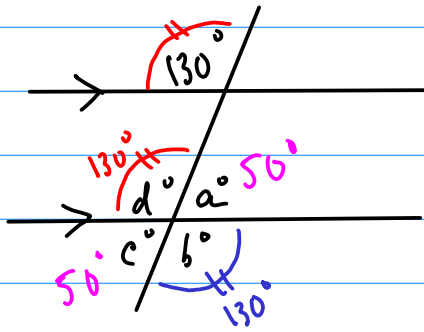


"AIA"

* Alternate Interior Angles Conjecture: If 2 \parallel lines are cut by a transversal, then alt. int. \angle 's are \cong .



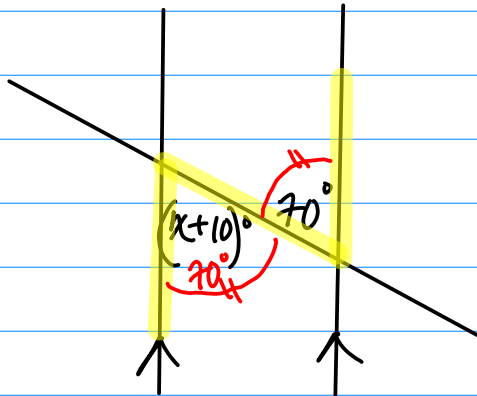
Ex:



a	50°
b	130°
c	50°
d	130°

Ex:

Find x .



$$\begin{array}{r} x+10 = 70 \\ -10 \quad -10 \\ \hline x = 60 \end{array}$$