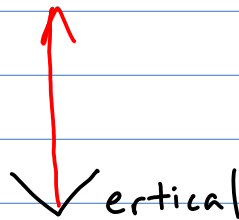


definitions

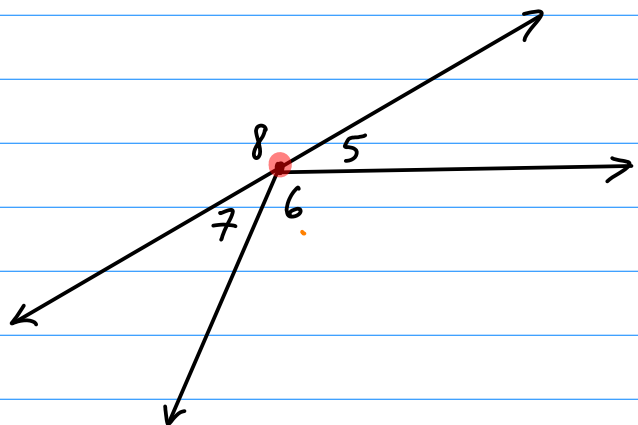
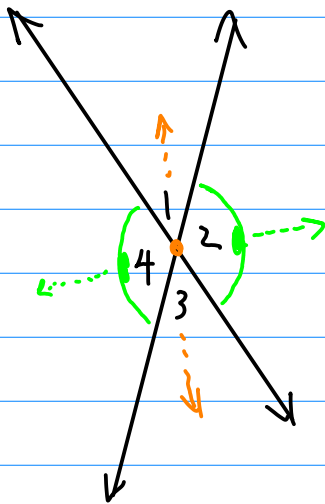
### §1.3: Defns for $\angle$ 's

Horizontal vs Vertical



has nothing to do w/  $\angle$

\* Vertical  $\angle$ 's:  $\angle$ 's facing opposite directions that share a vertex.

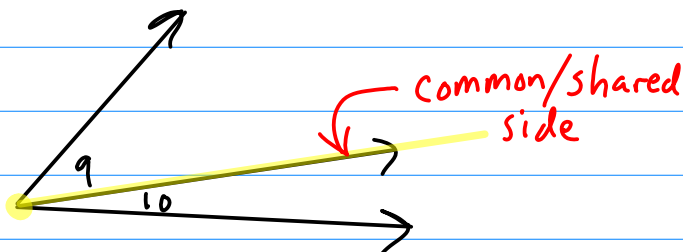


$\angle 2$  &  $\angle 4$  are vertical  $\angle$ 's  
 $\angle 1$  &  $\angle 3$  "

~~T/F~~:  $\angle 5$  &  $\angle 7$  are vert.  $\angle$ 's  
~~T/F~~:  $\angle 6$  &  $\angle 8$  "

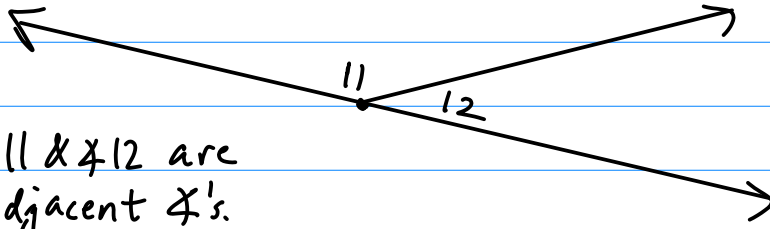
"next to"

\* Adjacent  $\angle$ 's:  $\angle$ 's that share a common side & vertex



$\angle 9$  &  $\angle 10$  are adjacent  $\angle$ 's

Ex:



T/F:  $\angle 11$  &  $\angle 12$  are adjacent  $\angle$ 's.

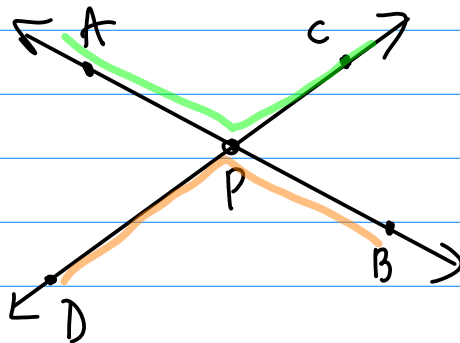
BUT

\* Linear Pair of  $\angle$ 's: adjacent  $\angle$ 's whose non-shared sides form a straight line.

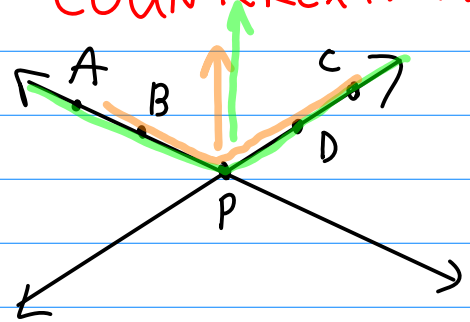
$\angle 11$  &  $\angle 12$  are a linear pair of  $\angle$ 's.

Ex:

If  $\overleftrightarrow{AB}$  &  $\overleftrightarrow{CD}$  intersect @  $P$ , then  $\angle APC$  &  $\angle BPD$  are vertical  $\angle$ 's. T/F?

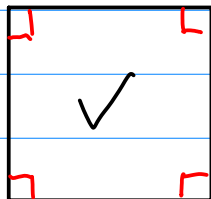


COUNTEREXAMPLE

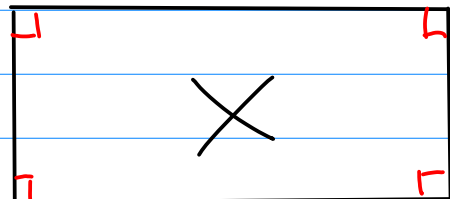


Ex:

T/F: Defn of a square: A 4-sided figure w/4 rt.  $\angle$ 's.



square



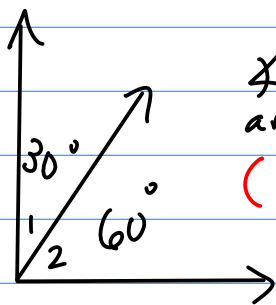
rectangle

compliment = "you look nice"

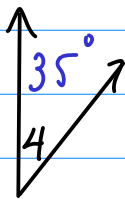
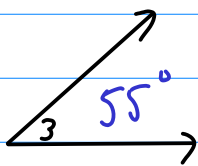
a b  $\square$  d e f ... r  $\square$  t  
 $90^\circ$   $180^\circ$

### \* Complementary $\angle$ 's

$\angle$ 's whose measures sum to  $90^\circ$



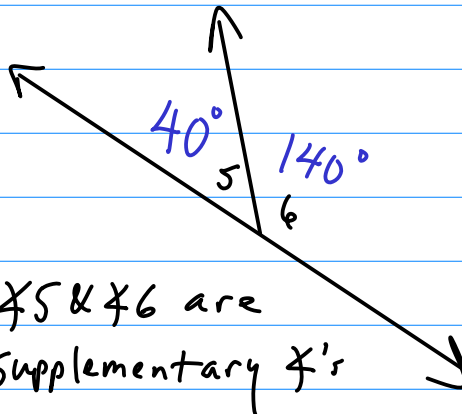
$\angle 1$  &  $\angle 2$  are complementary. ( $\&$  adjacent)



$\angle 3$  &  $\angle 4$  are comp.  $\angle$ 's

### Supplementary $\angle$ 's

$\angle$ 's whose measures sum to  $180^\circ$



$\angle 5$  &  $\angle 6$  are Supplementary  $\angle$ 's

Ex:

$\angle J$  &  $\angle K$  are complementary. If  $m\angle J = 65^\circ$ ,  
 $m\angle K = \underline{25^\circ}$ .

add to  $90^\circ$

$$\begin{array}{r} 90^\circ \\ - 65^\circ \\ \hline 25 \end{array}$$