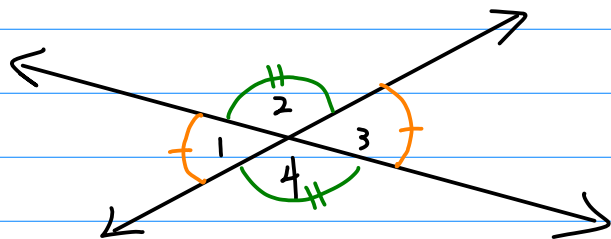


## §2.5: Linear & Vertical Angles Conjectures

### Quiz B topics:

- Inductive reasoning: What it is, a conjecture is \_\_\_\_\_, examples
- Deductive reasoning: What it is, examples (notes & HW)
  - Visual patterns
  - find  $n$ th element (arithmetic sequences)
- Rules of Algebra
  - if  $a=b$  and  $c \neq 0$ , then  $\frac{a}{c} = \frac{b}{c}$  ← Name Property
  - for  $5(x+3) = 30$ ,
    - solve
    - Write as 2-col proof

\* Vertical Angles Conjecture: If 2 angles are vertical angles, then the angles are  $\cong$ .

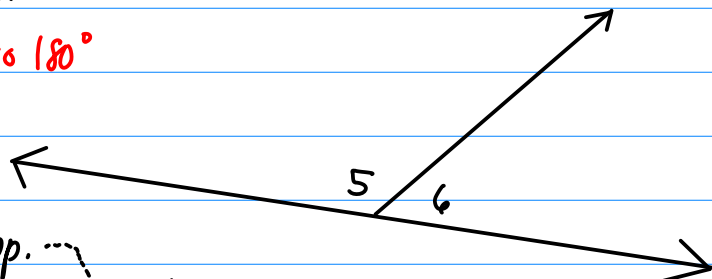


Since  $\angle 1$  &  $\angle 3$  are vert. angles, they are  $\cong$ .  
 " "  $\angle 2$  &  $\angle 4$  "

\* Linear Pairs Conjecture: If 2 angles form a linear pair, then the angles are supplementary.

↑ sum to  $180^\circ$

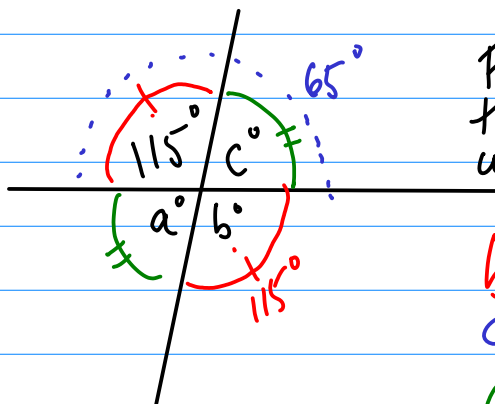
Since  $\angle 5$  &  $\angle 6$  are a linear pair, they are supp.



$$m\angle 5 + m\angle 6 = 180^\circ$$

(def'n of supp.)

Ex:



Find the values for the measures of the unknown  $\angle$ 's!

$$b = 115$$

$$c = 65$$

$$a = 65$$

$$\begin{array}{r} 180^\circ \\ - 115^\circ \\ \hline 65^\circ \end{array}$$

Ex:

