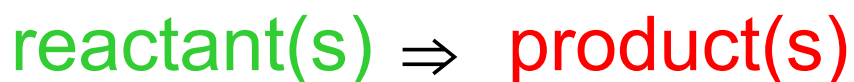
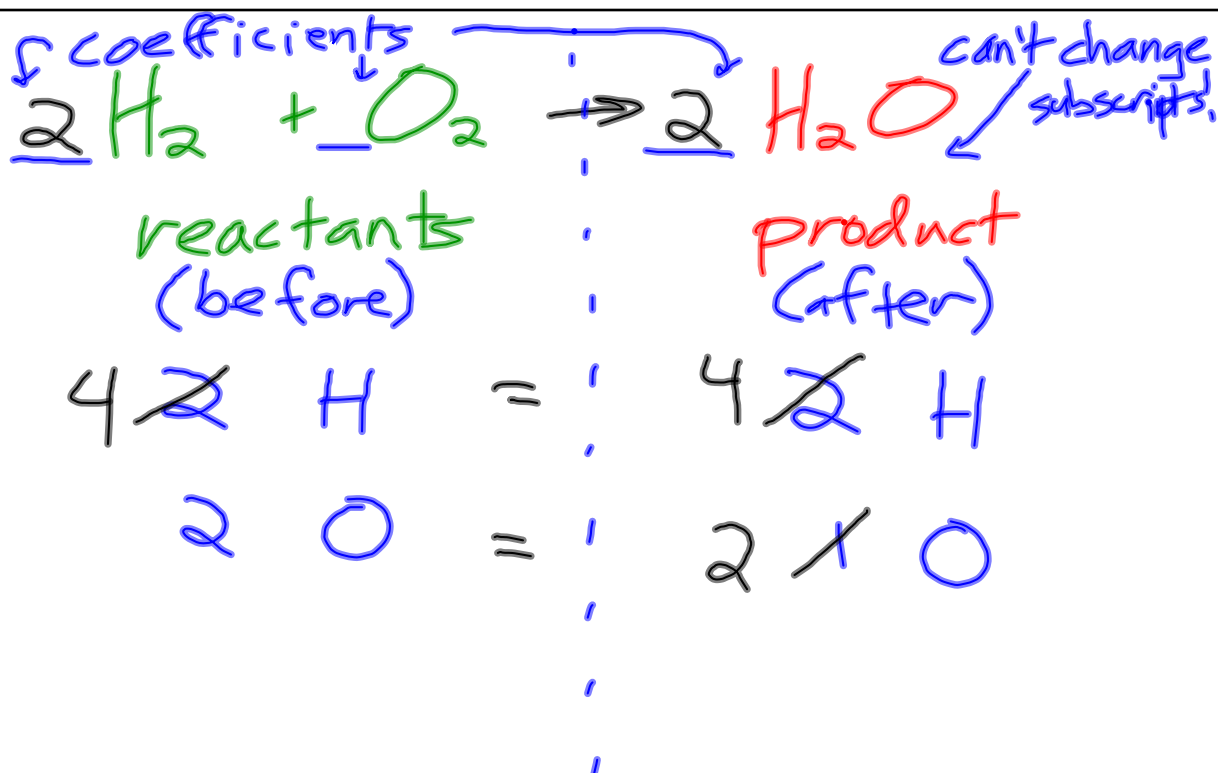


## Balancing Chemical Equations



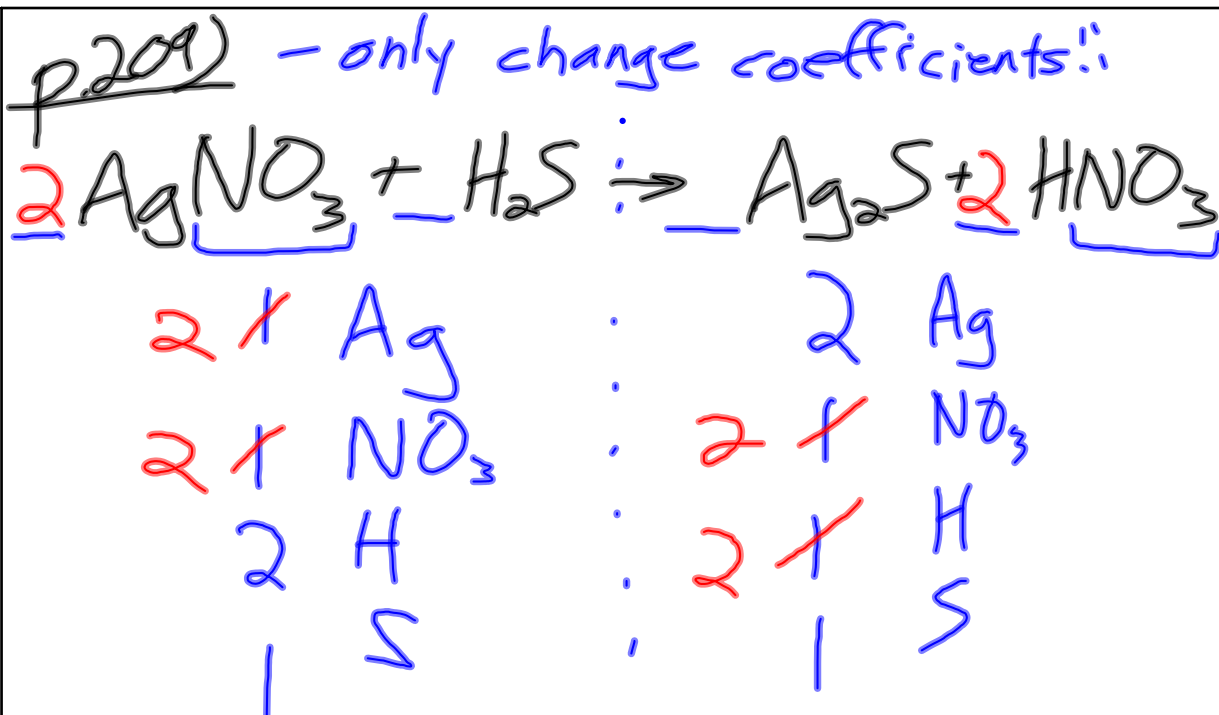
The number of **reactant atoms (before)** must equal the number of **product atoms (after)**

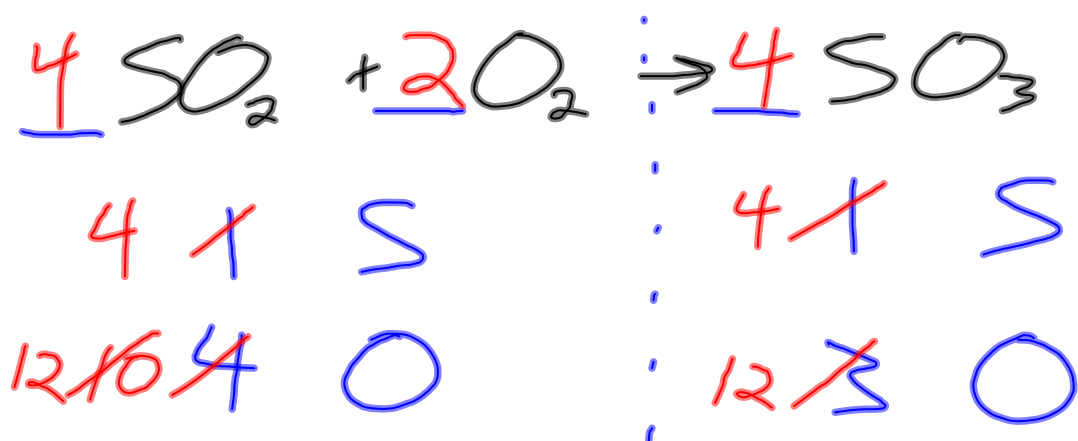
- must satisfy Law of Conservation of Matter
- can't destroy or create atoms!



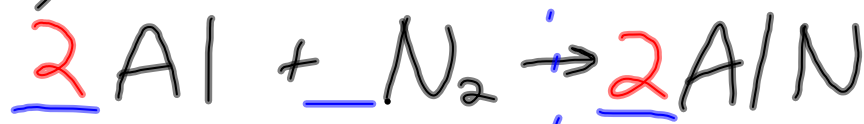
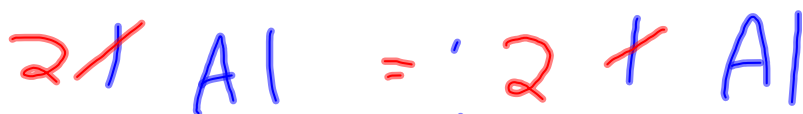
## Mr. Carman's *suggestions* for balancing chemical equations

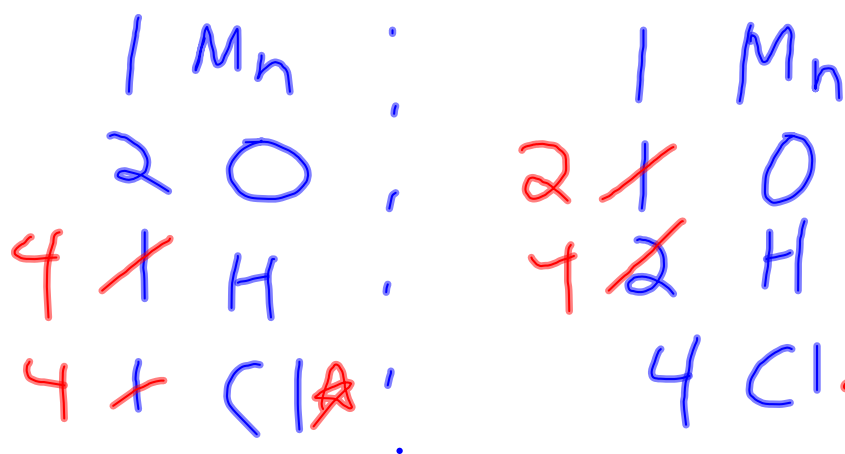
1. Balance "simple" elements first
  - only in one substance on each side
  - metals are usually "simple"
2. Balance "complex" elements last
  - in more than one substance on either side
  - e.g., O, H, N, C
3. Whenever possible, balance polyatomic ions as elements (i.e., "NO<sub>3</sub>" on both sides)
4. Use a pencil! (like sudoku or crosswords)





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*can't change subs!*



complex, balance  
last

p. 11)

