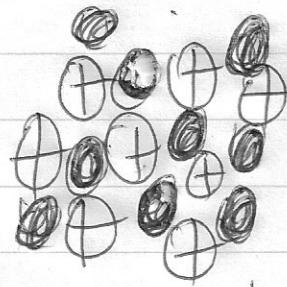


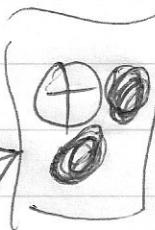
10/30  
#1

## Isotope Chart

- Above A.N. 85, the isotopes are mostly radioactive.
- Above A.N. 20 isotopes start to have more neutrons relative to protons.



Neutrons are like referees  
they allow positive protons  
to be together in the  
nucleus.

Over 20 pt  $\rightarrow$   it could take  
2 n° to 1 p<sup>+</sup>

10/30 #2

# What are nuclear reactions?

radioactivity - spontaneous release of energy from an unstable nucleus.

radiation - energy released when an unstable atom spontaneously ~~decays~~ decays.

Three types of radiation

- ① alpha  $\alpha$
- ② beta  $\beta$
- ③ gamma  $\gamma$