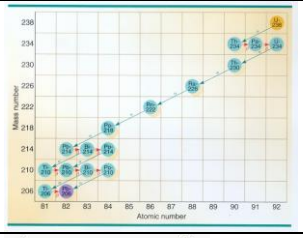
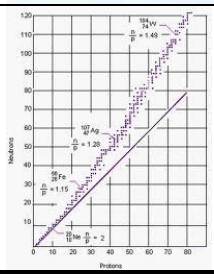
Topic: Radioactive Decay	**Name:** **Date:**
Questions/Main Ideas:	**Notes:**
What happens to a nucleus that	**Radioactive decay** occurs when an unstable nucleus releases energy by
is unstable?	emitting radiation
What is radiation?	**Radiation** refers to the penetrating rays and particles emitted by a
	radioactive source
What types of radiation is emitted	**Alpha (α)**
when radioactive decay occurs?	
	Beta (β)
	Gamma (γ)
What is electron capture?	
How do you solve nuclear decay	1. Assign an x and a y for the mass number and the charge of the nucleus
reactions?	2. Place an equal sign at the top and the bottom of the yield sign
	3. Solve the equation at the top for x and the equation at the bottom for y
	4. Look at the bottom number (charge of the nucleus) to determine the symbol
Example Problem:	${}^{14}_{6}C \rightarrow {}^{14}_{7}N +$ ---------- What type of decay is shown here?
What is a decay series?	
What causes a nucleus to become unstable?	

Summary and Question(s) I have: