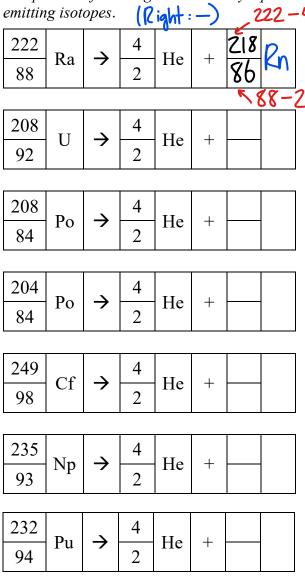
Assignment 1N – Alpha (α) Decay Processes

Answer the following questions based on the in class notes

20 Points

What is an alpha decay particle?	Why does alpha (α) decay occur in an atom?
2ptand or 2 He nucleus 2n° (noe)	Atom too Large Zratio > 1.5

Complete the following nuclear decay equations showing the alpha decay of common alpha emitting isotopes.



showing the alpha decay of common alpha $+172$ (Left: +)										
176 75	Re	\rightarrow	4 2	Не	+	172 73	Ta			
•	2+	13								
		\rightarrow	4	Не	+	181	Ir			
		-	2			77				
		→	4	Не	+	233	Am			
			2	110		95				
		\rightarrow	4	Не	+	207	Tl			
			2	110	1	81				
L										
		\rightarrow	4	Не	+	233	Pa			
			2	110		91				
			1	1		1				
		\rightarrow	4	Не	+	209	Tl			
			2	110		81				
	1					1				
		\rightarrow	4	Не	+	221	Fr			
		•	2	110		87				