Name_____ Per _____

Nuclear Decay

Using a periodic table, fill in the blanks to complete the following nuclear equations. Then, identify which type(s) of decay particles were produced.

Standard: Students know the three most common forms of radioactive decay (alpha, beta, and gamma) and know how the nucleus changes in each type of decay.

	Alpha	Beta	Gamma
$^{42}_{19}K \rightarrow {}^{0}_{-1}e +$ _____			
Describe the change that took place above.			
$^{235}_{92}U \rightarrow$ _____ $+ {}^{231}_{90}Th$			
Describe the change that took place above.			
$^{241}_{95}Am \rightarrow {}^{239}_{93}Np +$ _____			
Describe the change that took place above.			
$^{14}_{6}C \rightarrow$ _____ $+ {}^{14}_{7}N$			
Describe the change that took place above.			
$^{239}_{94}Pu \rightarrow {}^{4}_{2}He +$ _____			
Describe the change that took place above.			
_____ $+ {}^{1}_{0}n \rightarrow {}^{142}_{56}Ba + {}^{91}_{36}Kr + 3\,{}^{1}_{0}n + {}^{0}_{0}\gamma$			
Describe the change that took place above.			
$^{137}_{55}Cs \rightarrow {}^{137}_{56}Ba +$ _____			
Describe the change that took place above.			
$^{13}_{6}C + {}^{1}_{1}H \rightarrow$ _____ $+ {}^{0}_{0}\gamma$			
Describe the change that took place above.			