Name:

Period:

Radioactive Decay Homework

1. Define the following terms:
	1. **Radioactive –**
	2. **Decompose –**
	3. **Atomic Number –**
	4. **Mass Number –**
	5. **Alpha Decay -**
	6. **Beta Decay –**
	7. **Positron -**
	8. **Gamma Decay –**
2. You are given Radium-226.
	1. Write it in the correct form:
	2. Show the **alpha decay** reaction. What element is formed?
	3. Show the reaction if it underwent **beta decay**. What element is formed?
	4. Show the reaction if it underwent **positron emission**. What element is formed?
	5. Show the reaction if it underwent **gamma decay**. What element is formed?
3. You are given Americium-235.
	1. **Alpha Decay:**
	2. **Beta Decay:**
	3. **Positron Emission**:
	4. **Gamma Decay**:
4. Follow the instructions CAREFULLY for the next set of problems. You START with Uranium-238.
	1. Uranium-238 undergoes ALPHA decay. Product A:
	2. Product A undergoes BETA decay: Product B:
	3. Product B undergoes BETA decay: Product C:
	4. Product C undergoes ALPHA decay: Product D:
	5. Product D undergoes ALPHA decay: Product E:
	6. Product E undergoes POSITRON EMISSION: Product F:
	7. Product F undergoes ALPHA decay: Product G:
	8. Product G undergoes ALPHA decay: Product H:
	9. Product H undergoes GAMMA decay: Product I:
	10. Product I undergoes POSITRON EMISSION: Product J:
	11. Product J undergoes ALPHA decay: Product K:
	12. Product K undergoes GAMMA decay: Product L:
	13. Product L undergoes BETA decay: Product M:
	14. FINAL PRODUCT:
5. Using your results in Problem 4, make a graph of your results. WRITE ON THIS PAPER.

Directions:

* Label Mass # in the Y-axis and Atomic # in the X-axis.
* Put zero in the BOTTOM LEFT
* START Y-Axis with 206, GO UP BY 4’s until you get to 238
* START X-Axis with 80, GO ACROSS BY 1’s until you get to 92