

NAME:

1. **Review Classwork #4.**

2. List and describe **four types of ionizing radiation.**

3. **(This is a challenging one!)**

Fact #1: A typical **banana** contains about **10^{20} atoms of unstable radioactive potassium isotope K-40** with a half-life of **1.25 billion years**.

Fact #2: Scientists predict that the Sun will expand into a Red Giant and engulf the Earth in about 7.5 billion years.

Question: Approximately how many radioactive K-40 atoms from a single banana will still be there ready to get swallowed by the Sun 😊?

Show your work!