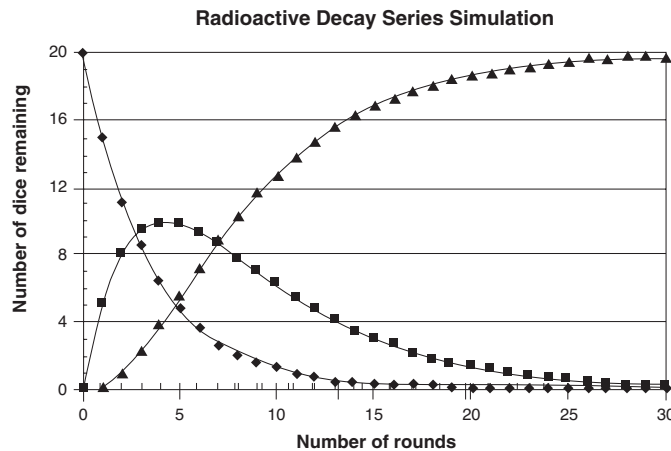


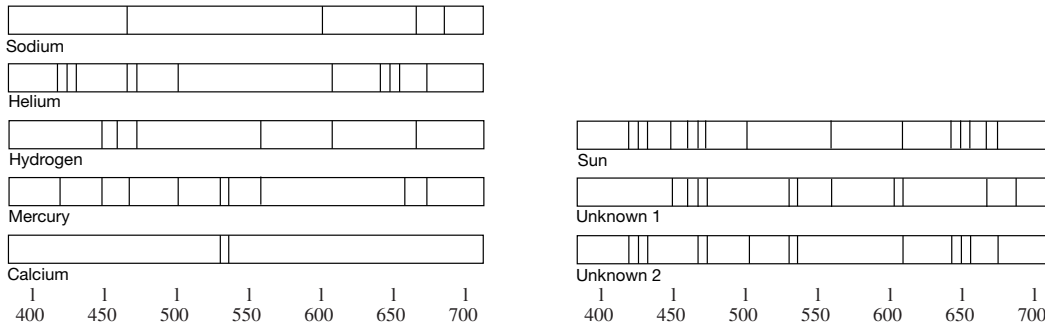
## AP Physics 2 Review Questions

### Integrating Content, Inquiry and Reasoning

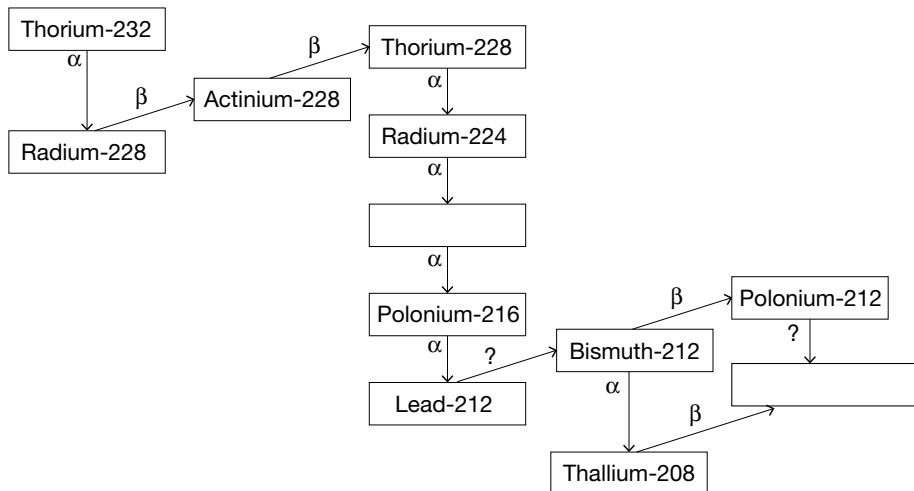
1. The graph below represents a two-step decay series model for a radioisotope. Correctly key the three curves as either parent isotopes (4-sided dice), radioactive “daughter” isotopes (six-sided dice), or non-radioactive products of decay (buttons). Explain your reasoning.



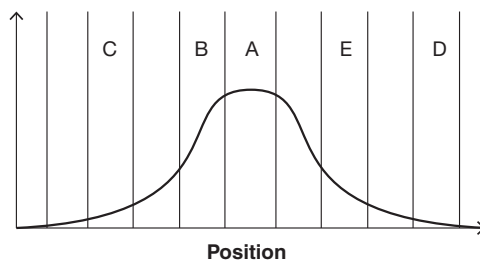
2. Identify the chemical composition of the atmosphere of the Sun and two unknown stars by analyzing their respective absorption spectra.



3. Identify the missing species (alpha particle, beta particle, or nuclide) in the Thorium-232 decay series below.



4. Below is a representation of the wave function for a particle.



*a.* What does the area under the curve represent?

*b.* Rank, in order of highest to lowest, the regions A–F by the probability of finding the particle in the respective region.