September 27, 2019
MSE 2101 topics

- Probabilistic nature of radioactive decay

- The definition of half-life

- The math behind radioactive decay

- Cs-137 has a half-life of 30.17 years as it decays into Ba-137. How much Cs is left after 50 years? How much Ba is produced after 75 years?

- Uranium-238 has a half-life of ~4.5 billion years. A rock from lunar highlands shows that 45% of the original uranium decayed into lead. How old is that rock?

- Determine the half-life of K-40 if you know that there is ~9% of primordial potassium left in an asteroid that is ~4.5 billion years old.