Quiz 10

Name: _____

Suppose the quantity (in kg) of depleted Uranium remaining in a barrel t billion years after disposal is given by $U(t) = 5e^{-0.154t}$.

(a) Find the average value of the quantity remaining during the first 10 billion years.

(b) (Bonus 10 pts) How much Uranium does the barrel contain at the time of disposal?

(c) (Bonus 20 pts) What is the half-life of depleted Uranium?