CHAPTER 17

RADIOACTIVITY AND NUCLEAR CHEMISTRY

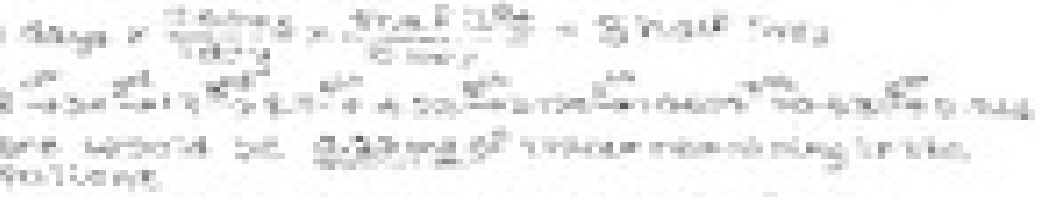
Practice Problems:

1. a) Write a nuclear equation for alpha decay of Po-214.

b) Write a nuclear equation for the beta decay of Bi-210.

c) Write a nuclear equation for positron emission by Co-55.

2. A 68-mg sample of a radioactive nuclide is administered to a patient to obtain an image of her thyroid. If the nuclide has a half-life of 12 hours, how much of the nuclide remains in the patient after 4.0 days?



3. A mammoth skeleton has a carbon-14 content of 12.50% of that found in living organisms. When did the mammoth live?