

Quiz 31.1A

A common nuclear isotope in the fallout of a nuclear fission weapon is Cobalt-60, which has a half-life of 5.26 years. You may assume the mass of Co-60 is 60.0 amu.

- a) If the activity of a sample of Co-60 is 75,000 Curies, how many grams of Co-60 are present?
- b) After how many years will the radioactivity of this sample fall to 1.00 Curies?