

Sample kinetic problems

Application to radioactive decay

1. Radioactive decay is a first order process. Suppose we have 20.0 g of a radioactive isotope. How much of it is left after 15.0 minutes if the half life of the isotope is 6.8 minutes?

2. How much time must elapse for an radioactive isotope to decay from 5.00 g to just 1.56 g? The half-life is 3.00 years for the isotope.