HALF-LIFE OF RADIOACTIVE ISOTOPES

Name _____

1. How much of a 100.0 g sample of ^{198}Au is left after 8.10 days if its half-life is 2.70 days?

   _____

2. A 50.0 g sample of ^{16}N decays to 12.5 g in 14.4 seconds. What is its half-life?

   _____

3. The half-life of ^{42}K is 12.4 hours. How much of a $75\overline{0}$ g sample is left after 62.0 hours?

   _____

4. What is the half-life of ^{99}Tc if a $50\overline{0}$ g sample decays to 62.5 g in 639,000 years?

   _____

5. The half-life of ^{232}Th is 1.4×10^{10} years. If there are 25.0 g of the sample left after 2.8×10^{10} years, how many grams were in the original sample?

   _____

6. There are 5.0 g of ^{131}I left after 40.35 days. How many grams were in the original sample if its half-life is 8.07 days?

   _____