

Chem I  
Nuclear Reaction Practice #2

Name : \_\_\_\_\_

- ${}_{95}^{248}\text{Am} \rightarrow {}_2^4\text{He} + \underline{\hspace{2cm}}$
- ${}_{88}^{225}\text{Fr} + 2 {}_{-1}^0\text{e} \rightarrow 3 {}_0^1\text{n} + \underline{\hspace{2cm}}$
- ${}_{90}^{230}\text{Th} + {}_0^1\text{n} \rightarrow {}_{-1}^0\text{e} + \underline{\hspace{2cm}}$
- ${}_{93}^{240}\text{Np} + 3 {}_1^1\text{p} \rightarrow \underline{\hspace{2cm}}$
- ${}_{89}^{228}\text{Ac} \rightarrow {}_2^4\text{He} + \underline{\hspace{2cm}}$
- ${}_{84}^{210}\text{Po} \rightarrow 2 {}_0^1\text{n} + \underline{\hspace{2cm}}$
- ${}_{96}^{246}\text{Cm} + 3 {}_0^1\text{n} \rightarrow 2 {}_2^4\text{He} + \underline{\hspace{2cm}}$
- ${}_{67}^{168}\text{Ho} + {}_2^4\text{He} \rightarrow \underline{\hspace{2cm}}$

9. If the half-life of a radioisotope X is 48 days, how much of the sample will be left after 288 days?

10. If 25 grams of a sample remains after 50 days and you started with 800 grams, how long is the half-life?