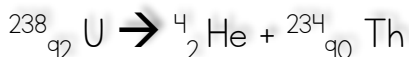
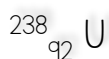
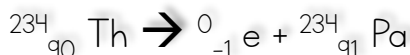
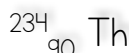


# Decay Series of Uranium-238

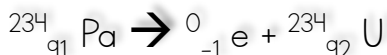
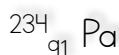
Unstable isotopes undergo alpha and beta radioactive decay in order to become more stable. This process takes a long time and the isotope transmutes into many different isotopes before reaching a stable one. Depending on the half-life of the isotope, these decays can take anywhere from split seconds to thousands or even millions of years! Beginning with uranium-238, complete the decay series below by writing the alpha or beta decay equation next to the isotope in the box in order to determine the next isotope in the series. The first decay has been completed as an example.



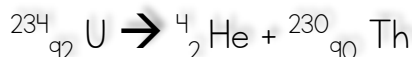
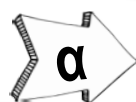
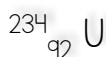
4.5 billion years



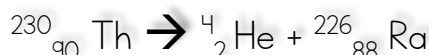
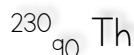
24 days



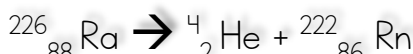
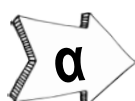
1 minute



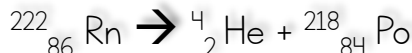
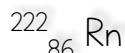
247000 years



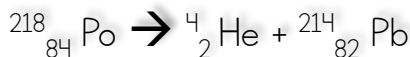
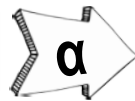
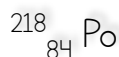
80000 years



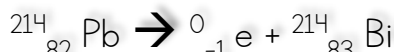
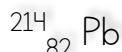
1602 years



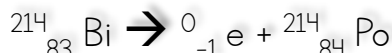
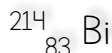
4 days



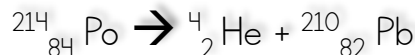
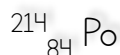
3 minutes



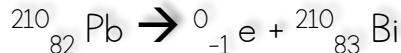
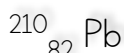
27 minutes



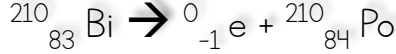
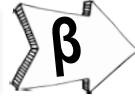
20 minutes



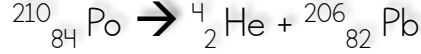
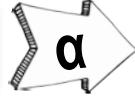
0.0000016 seconds



21 years



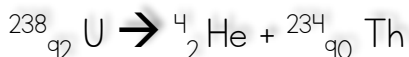
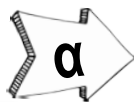
5 days



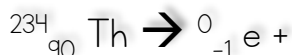
138 days

# Decay Series of Uranium-238

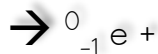
Unstable isotopes undergo alpha and beta radioactive decay in order to become more stable. This process takes a long time and the isotope transmutes into many different isotopes before reaching a stable one. Depending on the half-life of the isotope, these decays can take anywhere from split seconds to thousands or even millions of years! Beginning with uranium-238, complete the decay series below by writing the alpha or beta decay equation next to the isotope in the box in order to determine the next isotope in the series. The first decay has been completed as an example.

 $^{238}_{92}\text{U}$ 

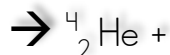
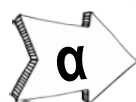
4.5 billion years

 $^{234}_{90}\text{Th}$ 

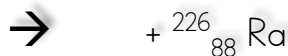
24 days

 $^{234}_{91}\text{Pa}$ 

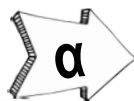
1 minute



247000 years



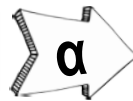
80000 years



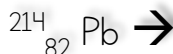
1602 years



4 days

 $^{218}_{84}\text{Po}$ 

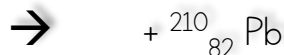
3 minutes



27 minutes



20 minutes

 $^{214}_{83}\text{Bi}$ 

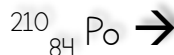
0.0000016 seconds



21 years



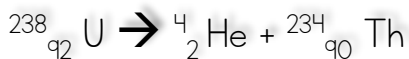
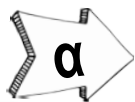
5 days

 $^{210}_{83}\text{Bi}$ 

138 days

# Decay Series of Uranium-238

Unstable isotopes undergo alpha and beta radioactive decay in order to become more stable. This process takes a long time and the isotope transmutes into many different isotopes before reaching a stable one. Depending on the half-life of the isotope, these decays can take anywhere from split seconds to thousands or even millions of years! Beginning with uranium-238, complete the decay series below by writing the alpha or beta decay equation next to the isotope in the box in order to determine the next isotope in the series. The first decay has been completed as an example.

 $^{238}_{92}\text{U}$ 


4.5 billion years

 $^{234}_{90}\text{Th}$ 


24 days



1 minute



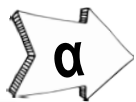
247000 years



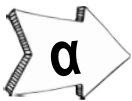
80000 years



1602 years



4 days



3 minutes



27 minutes



20 minutes



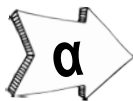
0.0000016 seconds



21 years



5 days



138 days