

Radioactive Decay

Complete the following table which shows the process of decay for Carbon-14.

Half-Life	Years	Atoms of C-14	Atoms of N-14
0	0	100,000	0
1	5,700	50,000	50,000
2			
3			
4			
5			
6			
7			
8			
9			
10			

RADIOACTIVE ISOTOPE	DISINTEGRATION	HALF-LIFE (years)
Carbon-14	$C^{14} \rightarrow N^{14}$	5.7×10^3
Potassium-40	$K^{40} \rightarrow Ar^{40}$ $K^{40} \rightarrow Ca^{40}$	1.3×10^9
Uranium-238	$U^{238} \rightarrow Pb^{206}$	4.5×10^9
Rubidium-87	$Rb^{87} \rightarrow Sr^{87}$	4.9×10^{10}

Draw a line graph showing the changing amounts of both C-14 and N-14 through 10 half-lives.

