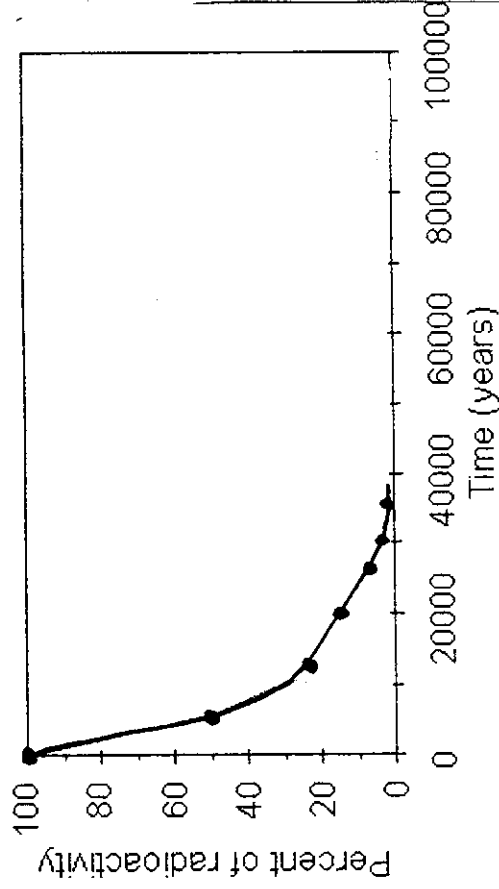


## Decay of Carbon 14

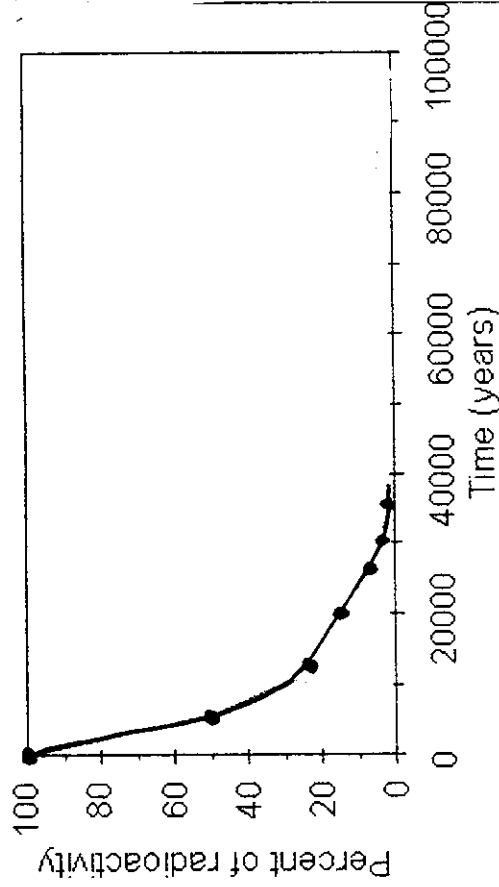
Radioactivity vs time



1. What is the half-life of Carbon-14 based on this graph? \_\_\_\_\_
2. What percent of Carbon-14 is left after 1 half-life? \_\_\_\_\_
3. What percent of Carbon-14 is left after 2 half-lives? \_\_\_\_\_
4. If there were 1000 atoms of Carbon-14 at time=0, how many atoms would be left after 4 half-lives? \_\_\_\_\_  
How many years would this take? \_\_\_\_\_
5. A set of artifacts were discovered that contained only 40% of the original Carbon-14.  
How old is the artifact? \_\_\_\_\_
6. How many protons would be in 1 atom of Carbon-14? \_\_\_\_\_ How many neutrons? \_\_\_\_\_
7. Carbon-14 is an isotope of Carbon--so is Carbon-12.  
A. What is an isotope?  
B. Based on the average atomic mass of carbon, which is more common in nature, C-12 or C-14?

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