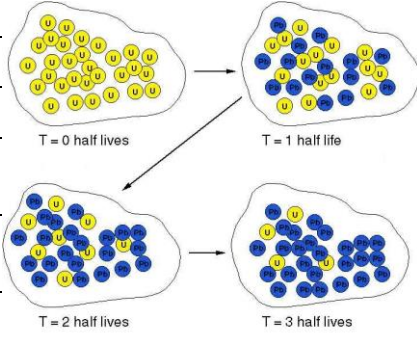
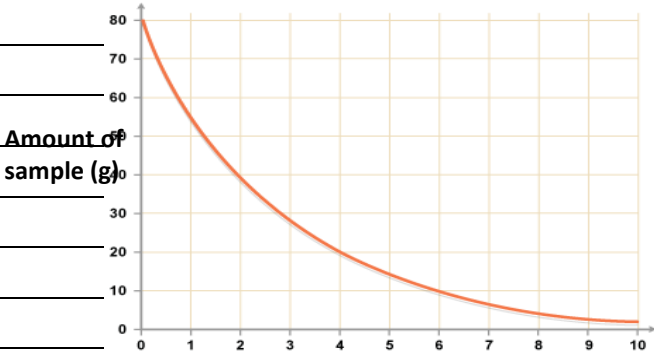


Topic: Half-Life	Name:	Date:
Questions/Main Ideas:	Notes:	
What is the definition of <b>half-life</b> ?	Half-life is	
 <p>T = 0 half lives</p> <p>T = 1 half life</p> <p>T = 2 half lives</p> <p>T = 3 half lives</p>	<p>After each half-life, we expect</p> <ul style="list-style-type: none"> <li>• After 24 days, 10.0 grams of thorium-234 have decayed to 5.0 grams. What is the half-life of Th-234?</li> <li>• True or false: After 48 days, all of the initial 10.0 grams of Th-234 will have undergone radioactive decay.</li> <li>• Fluorine-18 has a half-life of 110 minutes. If you begin with 110 atoms of <math>^{18}\text{F}</math>, how many atoms of <math>^{18}\text{F}</math> will remain after 110 minutes?</li> </ul>	
What type of decay is half-life?	Half-life is a type of exponential decay. <i>Find the half-life below:</i>	
	 <p>Amount of sample (g)</p> <p>Days</p>	
What could be asked?	Initial amt., Final amt., # of half-lives, Total time, Length of half-life	
Manganese-56 has a half-life of 2.6 hours. What is the mass of manganese-56 remaining in a 16 gram sample of the isotope after 10.4 hours? ( <i>show work below</i> )		
What is the half-life of a 100.0 g sample of nitrogen-16 that decays to 12.5 g of nitrogen-16 in 21.6 seconds? ( <i>show work below</i> )		
The mass of cobalt-60 in a sample is found to have decreased from 0.800 g to 0.200 g in a period of 10.5 years. From this information, calculate the half-life of cobalt-60. ( <i>show work below</i> )		
<b>Summary and Question(s) I have:</b>		