Half - Life Practice Name _____

1) The half life of Carbon-14 is 5730 years. If you start with 10.0 kg of Carbon-14, roughly how much will be left after 5730 years?

2) How much Carbon-14 from above would be left after 11,460 (5730x2) years?

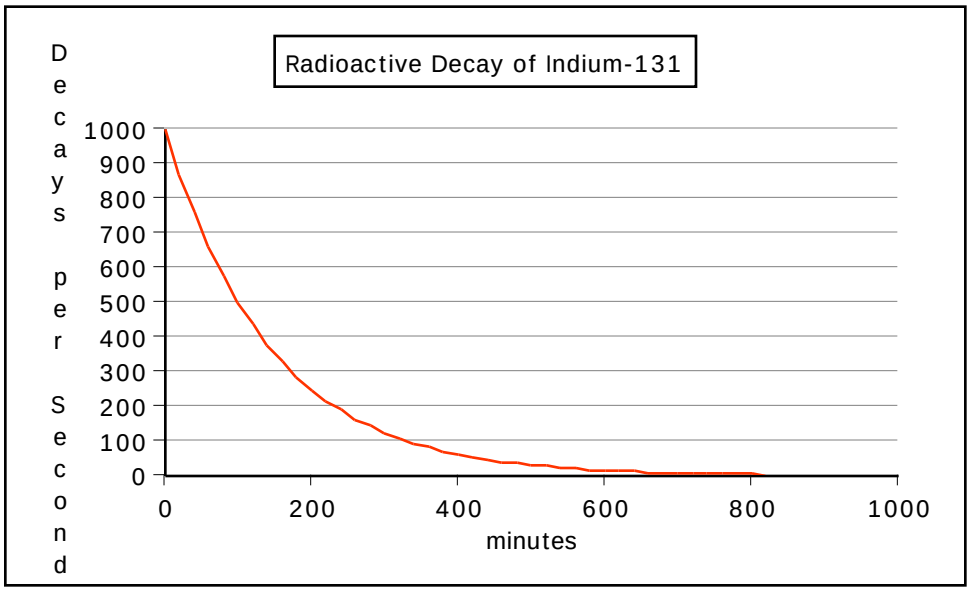
3) Carbon-14 decays by giving off a beta particle (β). Write the nuclear equation below that shows how this happens.

4) How many half lives will it take for there to be only 1/8 of the original radioactive substance left?

5) How many years will have passed if something contains only 25% of its original Carbon-14 atoms?

(over)

5) Given the graph below determine the half-life of Indium-113:



6) Nuclear waste from power plants contains the isotope Plutonium-239. It's half-life is 24,100 years. How long would it take for there to be less than 1% of this isotope left?