Honors Physical Science
Half-Life Practice Worksheet - Key

Complete each of the following items. Please show all of your work and put a ring or box around your final answer. (The use of a calculator is permitted on this worksheet.)

1. Rhodium-106 has a half-life of 30 seconds. If you start with a 100g sample of this material, how much will you have left after one minute?

   25g

2. What is the half-life of cesium-137 if a 10g sample reduced to 1.25g in 90 years?

   30 yrs

3. How much of a 7g sample of strontium-89 should remain after 265 days if its normal half-life is 53 days?

   .21875g

4. How old is a fossil that should have contained 2g of tin-126, a radioisotope that has a half-life of 100,000 years, but now contains only.25g.

   300,000 yrs

5. What is the half-life of xenon-137 if only .0078125g remain of a 25g sample after 2 hours?

   4 min