Name: Date :

Year :

Radioactivity- Half Life

[redacted]

Resource1

Resource2

Answer the following questions by referring to the video above.

Q1. Why decaying process is unpredictable? Because it is _____ process.

Q2. What is meant by ACTIVITY of a sample? It is overall rate of _____ all the isotopes in the sample.

Q3. State the unit of the activity. _____

Q4. What is meant by half-life. Half- life is the time taken for the number of radioactive _____ in a sample to _____ .

Q5. From the video(first graph), what is the time take to make the activity of the sample to halve its value? _____

Q6. We can say that the half-life of above sample is _____ .

Extended Questions

Q7. Watch how to solve the related problems in the video and try to answer The questions below:

a) A radioactive isotopes has a life-life of 15 days and an initial count-rate is 2000 counts per second. Determine the count-rate after 45 days. _____ Counts/s

b) The half-life of a radioactive isotope is 27 years. How long will its mass take to fall from 2.00 g to 0.25 g? _____ years.

c) The activity of an isotope falls from 6000 Bq (becquerel) to 1500 Bq in 10 days. What is its half-life? _____ days.

LIVEWORKSHEETS