Lab 7: Case Study 4

Polonium -214 has a very short half-life of 1.4 X 10-4 sec. If a sample has a mass of 50 mg,

(i) Form the differential equation and find a formula for the mass that remains after ‘t’ seconds.

Using WxMaxima

(ii) solve the differential equation.

(iii) Find the mass that remains after hundredth of a second.

(iv) Sketch the graph of the mass function.