In chapter one, it started with introducing the numerical methods for solving ordinary differential equations (ODEs) in physics. This chapter stated some physics problems that rely on ODEs and computational techniques. It starts with the radioactive decay problem with the first-order differential equation, $dNu/dt = -Nu/\tau$, where Nu is the number of undecayed nuclei and τ is the mean lifetime. This chapter mentioned the Euler method as an approximate approach. This method estimates values iteratively by discretizing time steps, allowing step-by-step computational of decay behavior.

This chapter also discussed a computational solution, stated the importance of structured programming. Pseudocode is used to describe the main steps- declaring variables, initializing parameters, performing calculations, and storing results.

Further discussion focused on numerical considerations, applied different time step sizes (Δt) to assess accuracy. A graph was plot to show smaller Δt present a more precise results but increase computational cost.