

PHAR533

Practical 1

Problem 1: Plot the following data on both standard rectangular coordinate

Time (minutes)	Drug A (mg)
10	96.0
20	89.0
40	73.0
60	57.0
90	34.0
120	10.0
130	2.5

- Does the decrease in the amount of drug *A* appear to be a zero-order or a first-order process?
- What is the rate constant k ?
- What is the half-life $t_{1/2}$?
- Does the amount of drug *A* extrapolate to zero on the x axis?
- What is the equation for the line produced on the graph?

Problem 2: Plot the following data on both semilog graph paper and standard rectangular coordinates.

Time (minutes)	Drug A (mg)
4	70.0
10	58.0
20	42.0
30	31.0
60	12.0
90	4.5
120	1.7

- Does the decrease in the amount of drug *A* appear to be a zero-order or a first-order process?
- What is the rate constant k ?
- What is the half-life $t_{1/2}$?
- Does the amount of drug *A* extrapolate to zero on the x axis?
- What is the equation for the line produced on the graph?

