

# Linearization of Data

## Pre-lab Test 1 (10 Points)

Print Name \_\_\_\_\_

Lab Section \_\_\_\_\_ Date \_\_\_\_\_

**Staple your work sheet to this pre-lab test. You are required to show your calculations! Points will be taken off if your work is not neat and well organized. Be sure to print your name on both sheets.**

**Please note that you do not need an expensive graphing calculator for this course. You are required to have one that does statistical functions and linear regression.**

- 1) A researcher measures the concentration of Advil in a patient's bloodstream as a function of time, making measurements every hour. The resulting data is shown in the table below. We expect that the concentration of Advil will follow an exponential decay. Linearize this data and use linear regression to calculate the initial concentration and decay time.

Time(hours)	Concentration(g/liter)
1	2.58
2	0.95
3	0.35
4	0.13
5	0.05

Initial Concentration \_\_\_\_\_, Decay Time = \_\_\_\_\_.