

Math 31L Quiz #3 (Lab 5)

Section 11, Blake, Fall 1996

Name _____

1. (8 points) Suppose we have a set of data points, $\{(X, Y)\}$, with the property that the points $\{(X, \ln Y)\}$ lie in a line. What type of function gives the relationship between X and Y ? Prove that your answer is correct.

2. (12 points) In the second lab we did this semester we made the following measurements (in centimeters and seconds) for a pendulum:

L (length):	295	188	111	68	38	20	15	5
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P (period):	3.48	2.74	2.12	1.69	1.25	.91	.77	.52
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Shown below are the semi-log (on the left) and the log-log (on the right) plots of the data. Use the techniques we have learned this week to find a function that expresses P in terms of L . Explain and show all of your work.

[The plots were physically pasted on this page.]