

MATH 107/CCE

Practice Problems 5 Spring 2003

University of Rhode Island

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1. *Consumer Reports* uses a survey to collect on the annual cost of repairs for over 300 makes and models of automobiles (*Consumer Reports 1992 Buying Guide*). The following data show the average annual repair cost (\$) and the age of automobile (years).

<i>Age</i>	1	2	3	4	5
<i>Repair Cost</i>	135	175	320	300	450

- (a) Find the line of best fit.
- (b) Predict the estimated annual repair cost for a 7-year-old automobile.

2. The following data pertain to the chlorine residual in a swimming pool at various times after it has been treated with chemicals:

<i>Number of hours</i>	2	4	6	8	10
<i>Chlorine residual</i>	1.8	1.5	1.4	1.1	1.1

- (a) Find the line of best fit (regression line).
- (b) Predict the chlorine residual in the pool 5 hours after it has been treated with chemicals.