

Math 110
Spring, 2009

Name _____
Calculator _____

Homework #17
Due Thursday, May 28
No late papers accepted! No excuses!

A store manager wishes to find out whether there is a relationship between the age of her employees and the number of sick days they take each year. The data for the sample are shown.

<u>Ages</u>	<u># of sick days taken</u>
18	16
26	12
39	9
48	5
53	6
<u>58</u>	2

- Find the mean and the standard deviation for the ages.
- Find the mean and the standard deviation for the number of sick days taken.
- At the 5% significance level, is there a linear relationship between the ages of her workers and the number of sick days taken?
- Find the regression line equation.
- Predict the number of sick days that will be taken by an employee that is 30 years old.
- Construct a 95% confidence interval for the mean ages of the workers.