Regression Exercise

This is a team activity. Allocate the effort.

Answer the following using the cheese taste data. In this case we have a linear model for taste as a function of Lactic.

1. Complete the tables finding the values for **a – g**.
2. Sketch the regression line indicating the critical parts of the plot
3. Find the expected value and confidence intervals for taste when Lactic = .90
4. Compare these results with those you find when using H2S as the predictor variable, which linear model is better for taste? Explain.
5. Grade your work by performing the linear regression with either R and SAS.
6. Which part was hard? Why?

Cheese Taste Data

The MEANS Procedure

Results for Taste, mean = 24.53. for Lactic, mean = 1.44

The REG Procedure

Model: MODEL1

Dependent Variable: taste

Number of Observations Read	30
Number of Observations Used	30

Analysis of Variance					
Source	**DF**	**Sum of Squares**	**Mean Square**	**F Value**	**Pr > F**
Model	1	3800.39797	3800.39797	**e**	<.0001
Error	**a**	**c**	**d**		
Corrected Total	**b**	7662.88667			

Root MSE	**f**	**R-Square**	**g**
Dependent Mean	24.53333	**Adj R-Sq**	0.4779
Coeff Var	47.87381		

Parameter Estimates					
Variable	**DF**	**Parameter Estimate**	**Standard Error**	**t Value**	**Pr > |t|**
Intercept	1	−29.85883	10.58232	−2.82	0.0087
Lactic	1	37.71995	7.18640	5.25	<.0001