Cheese Regression Exercise

1. 1. The degrees of freedom for the error term is 28.
   2. The degrees of freedom for the corrected total term is 29.
   3. The sum of squares error term is 3,862.4887.
   4. The mean square error term is 137.946025.
   5. The F value of the model is 27.5498911.
   6. The root mean square error is 11.7450426.
   7. The R-square value is 0.49594861.
2. A graph paper with red lines

   Description automatically generated
3. The expected value for taste when Lactic = 0.90 is 4.089125.

The expected 95% confidence interval when Lactic = 0.90 is (-4.9910879 , 13.1693379)

1. Code done in R Studio.

The model with H2S as the predictor variable was a better fit because it had a higher R-squared value. This means that H2S was more successful at predicting the variation in taste than lactic was.

1. Done in R Studio. Our calculations were correct.
2. Calculating the values by hand was difficult. It had been a long time since we had to use the formulas and had to frequently refer to the notes to ensure we were properly calculating each value. It was also slightly difficult to sketch the regression line as the expected y-intercept was far below all the values recorded for the lactic variable. Lastly, it was difficult to calculate the confidence interval by hand. These calculation had to be redone several times before the same answer was reached consistently.