\*\*All work shown (step by step), in simple terms please!!!

No excel, just formulas\*\*.

17) Computer output:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Coefficients | Std. Error | t-Stat | P-value |
| Intercept | 729.8665 | 169.25751 | 4.3121659 | 0.0010099 |
| Price | -10.887 | 3.4952397 | -3.1148078 | 0.0089406 |
| Advertising | 0.0465 | 0.0176228 | 2.6386297 | 0.0216284 |

ANOVA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | df | SS | MS | F | Significance F |
| Regression | 2 | 12442.8 | 6221.4 | 37.56127994 | 0.00000683 |
| Residual | 12 | 1987.6 | 165.63333 |  |  |
| Total | 14 | 14430.4 |  |  |  |

Se =12.86986 R-sq = 0.862263 R-sq(adj) = 0.8393068

1. Write and interpret the multiple regression equation.
2. Does the model with Price and Advertising contribute to the prediction of Y? Use a 0.05 significance level.
3. Which independent variable appears to be the best predictor of sales? Explain.
4. What is the number of observations used in this study?
5. Assuming that the coefficient on Advertising has Ha: B1 > 0, what statistical decision should be made at 5% level.
6. What is the standard error of estimate? Can you use this statistic to assess the model’s fit? If so, how?
7. What is the coefficient of determination, and what does it tell you about the regression model?
8. What is the coefficient of determination, adjusted for degrees of freedom? What do this statistic and the statistic referred to in part (g) tell you about how well this model fits that data.
9. Test the overall utility of the model. What does the p-value of the test statistic tell you?