

3. What question would drive you to do the analysis in Figure 2. Discuss the answer that the figure is suggesting for the question.

4. The output in Figure 4 is the result of finding a model to explain the factors that affect the total bill. Discuss the result. [Issues to discuss: Is the model significant? How much variation is explained? Are all the variables in the model worth keeping?]

5. For planning purposes, it is of interest to determine if the average size of the party differs significantly according to the day of the week. Explain how you would answer that question. [A picture could help here]

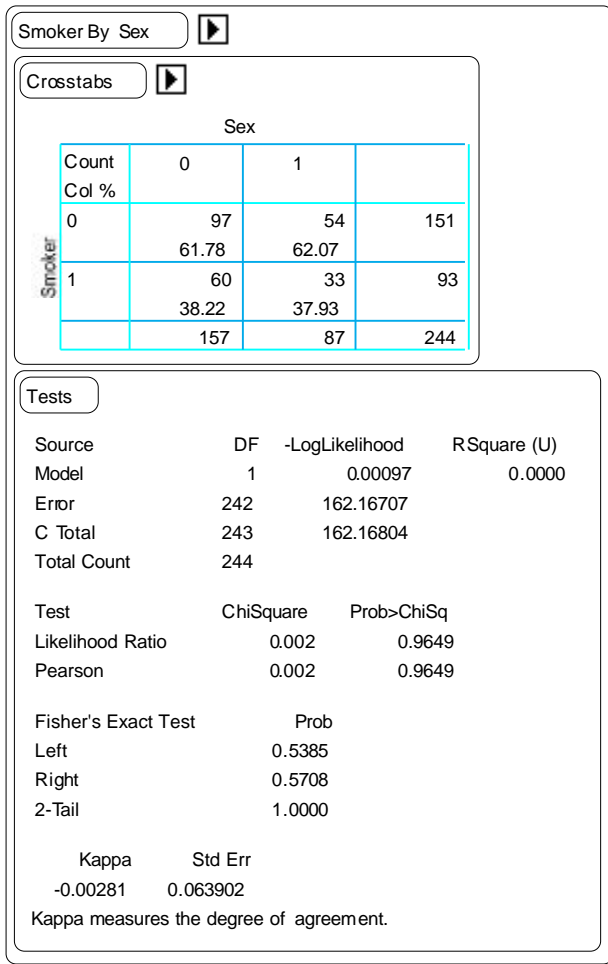


Figure 1

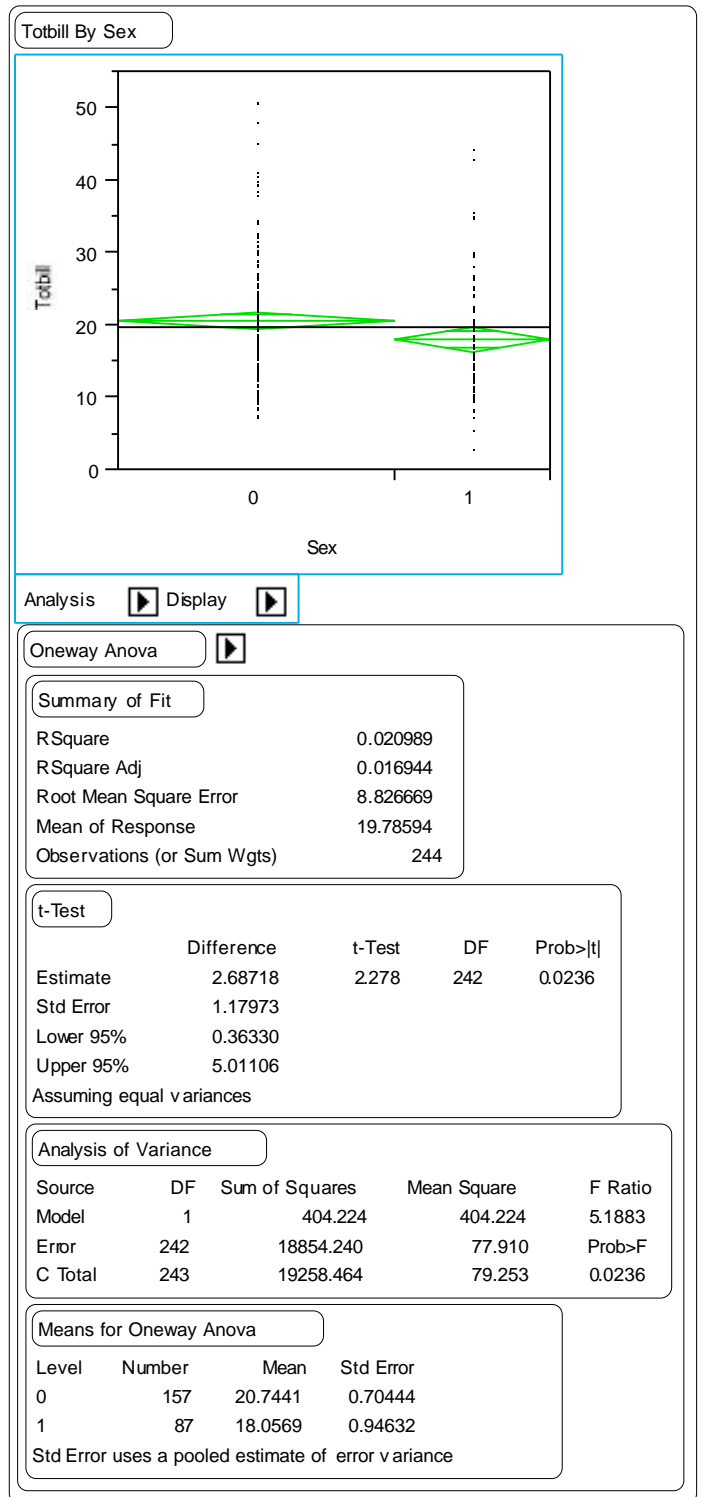


Figure 2

Figure 3

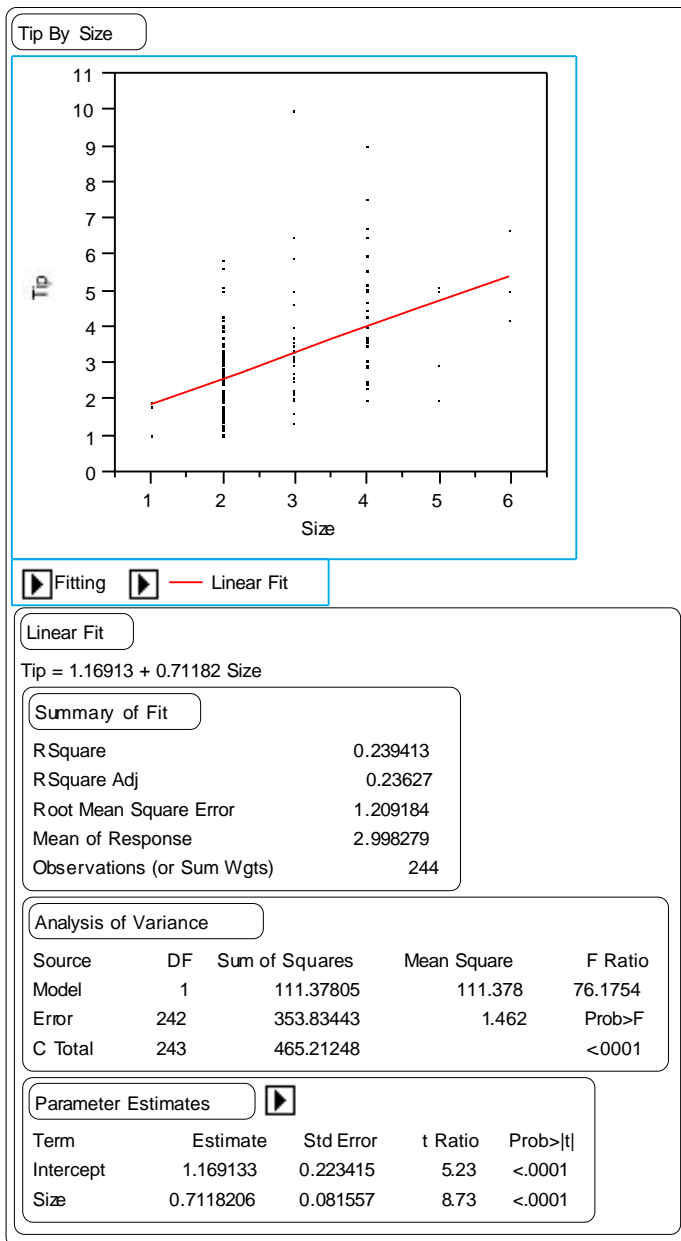


Figure 4 (below)

Response: Totbill

Summary of Fit

RSquare	0.409113
RSquare Adj	0.391586
Root Mean Square Error	6.943959
Mean of Response	19.78594
Observations (or Sum Wgts)	244

Lack of Fit

Parameter Estimates

Effect Test

Source	Nparm	DF	Sum of Squares	F Ratio	Prob>F
Sex	1	1	104.6302	2.1699	0.1421
Smoker	1	1	498.6705	10.3419	0.0015
Day	3	3	116.4734	0.8052	0.4921
Time	1	1	185.3241	3.8434	0.0511
Size	1	1	6608.8322	137.0599	<.0001

Whole-Model Test

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	7	7878.882	1125.55	23.3428
Error	236	11379.582	48.22	Prob>F
C Total	243	19258.464		<.0001