Exam 2 Regression Models

MODEL A – Sales Performance 1

Summary Statistics for Accts

Mean	122.70
Std Dev	45.58
N	25

Regression Plot
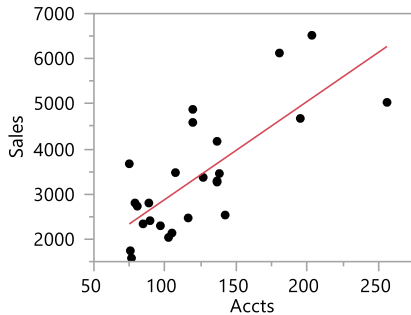
Summary of Fit

RSquare	0.568
RSquare Adj	0.550
Root Mean Square Error	881.09
Mean of Response	3374.57
Observations (or Sum Wgts)	25

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	1	23524074	23524074	30.3018
Error	23	17855475	776324.99	Prob > F
C. Total	24	41379549		<.0001

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	709.32	515.25	1.38	0.1819
Accts	21.72	3.95	5.50	<.0001

Residual by Predicted Plot
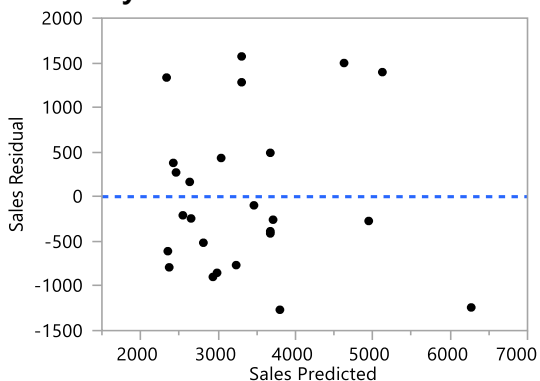
MODEL B – Sales Performance 2

Summary of Fit

RSquare	0.575
RSquare Adj	0.536
Root Mean Square Error	894.36
Mean of Response	3374.57
Observations (or Sum Wgts)	25

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	2	23782249	11891124	14.8662
Error	22	17597300	799877.29	Prob > F
C. Total	24	41379549		<.0001

Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	873.11	597.20	1.46	0.1579
Accts	19.08	6.14	3.11	0.0051
Time	1.83	3.22	0.57	0.5757

Residual by Predicted Plot
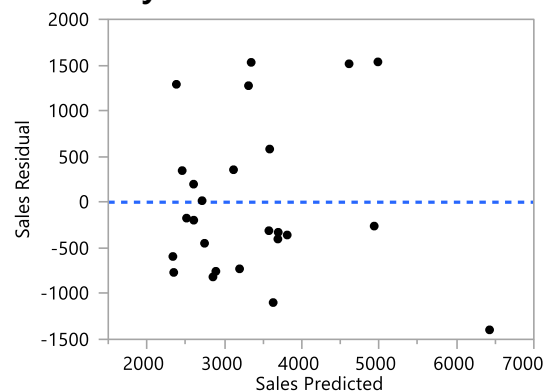
MODEL C – Fresh Detergent

Actual by Predicted Plot

Demand Predicted P<.0001 RSq=0.94
RMSE=0.1737
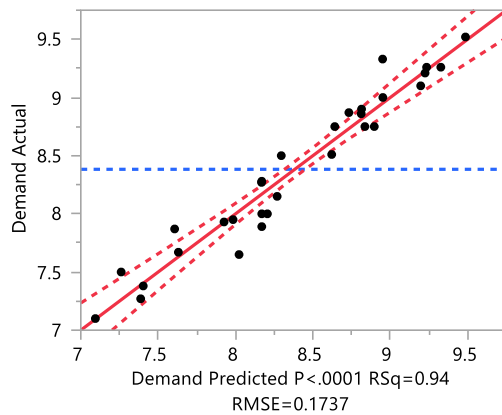
Residual by Predicted Plot
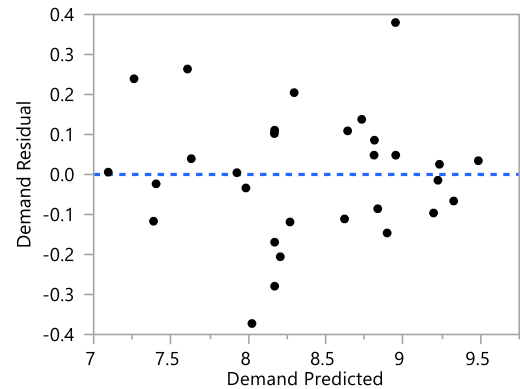
Summary of Fit

RSquare	--------
RSquare Adj	0.935
Root Mean Square Error	0.174
Mean of Response	8.38
Observations (or Sum Wgts)	30

Residual Demand

Normal Quantile Plot

Analysis of Variance

Source	DF	Sum of Squares	Mean Square	F Ratio
Model	4	12.70	3.18	105.28
Error	25	0.75	0.03	Prob > F
C. Total	29	13.46		<.0001
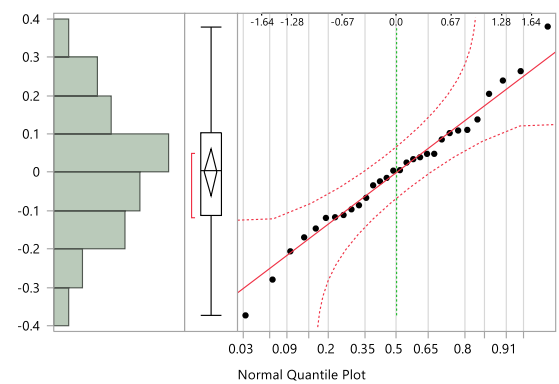
Parameter Estimates

Term	Estimate	Std Error	t Ratio	Prob>|t|
Intercept	4.48	0.531	8.43	<.0001
PriceDif	1.64	0.221	7.43	<.0001
Adv Exp	0.58	0.087	6.66	<.0001
DA	-0.41	0.080	-5.08	<.0001
DB	-0.18	0.077	-2.38	0.0250