Data Set Information:

We perform energy analysis using 12 different building shapes simulated in Ecotect. The buildings differ with respect to the glazing area, the glazing area distribution, and the orientation, amongst other parameters. We simulate various settings as functions of the afore-mentioned characteristics to obtain 768 building shapes. The dataset comprises 768 samples and 8 features, aiming to predict two real valued responses. It can also be used as a multi-class classification problem if the response is rounded to the nearest integer.

Attribute Information:

The dataset contains eight attributes (or features, denoted by X1...X8) and two responses (or outcomes, denoted by y1 and y2). The aim is to use the eight features to predict each of the two responses.

Specifically:
X1 Relative Compactness
X2 Surface Area
X3 Wall Area
X4 Roof Area
X5 Overall Height
X6 Orientation
X7 Glazing Area
X8 Glazing Area Distribution
y1 Heating Load
y2 Cooling Load

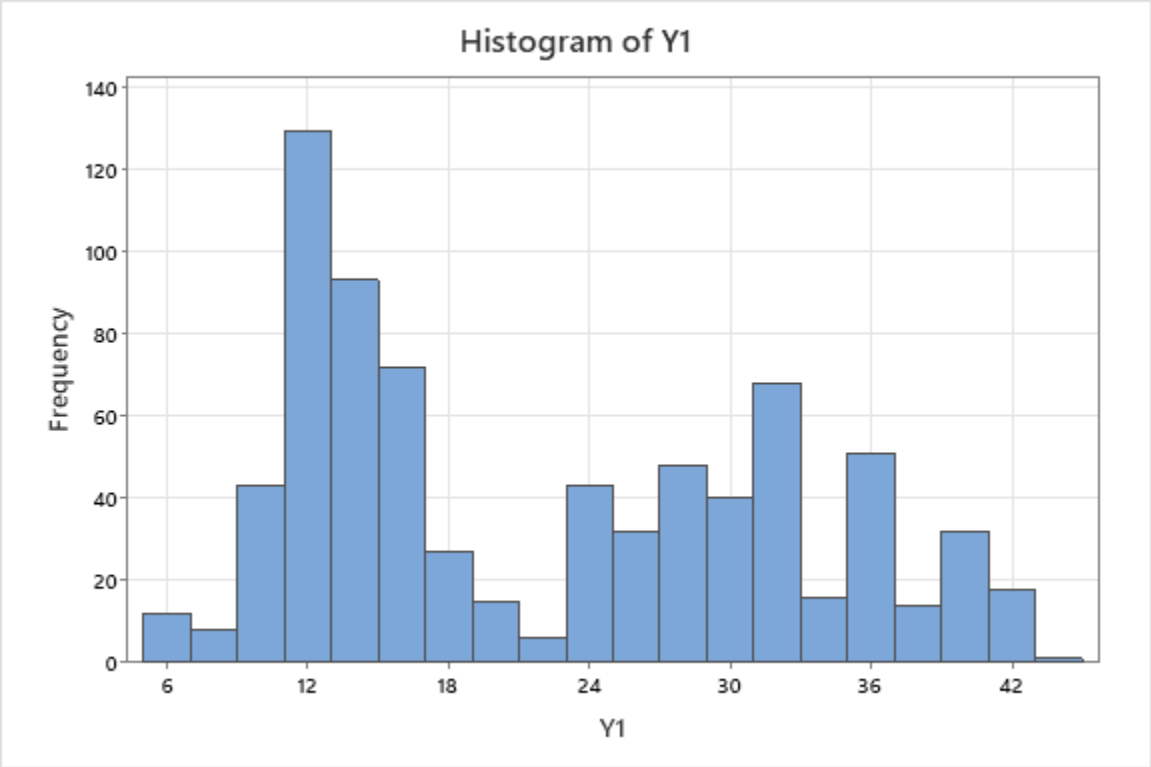
At the first

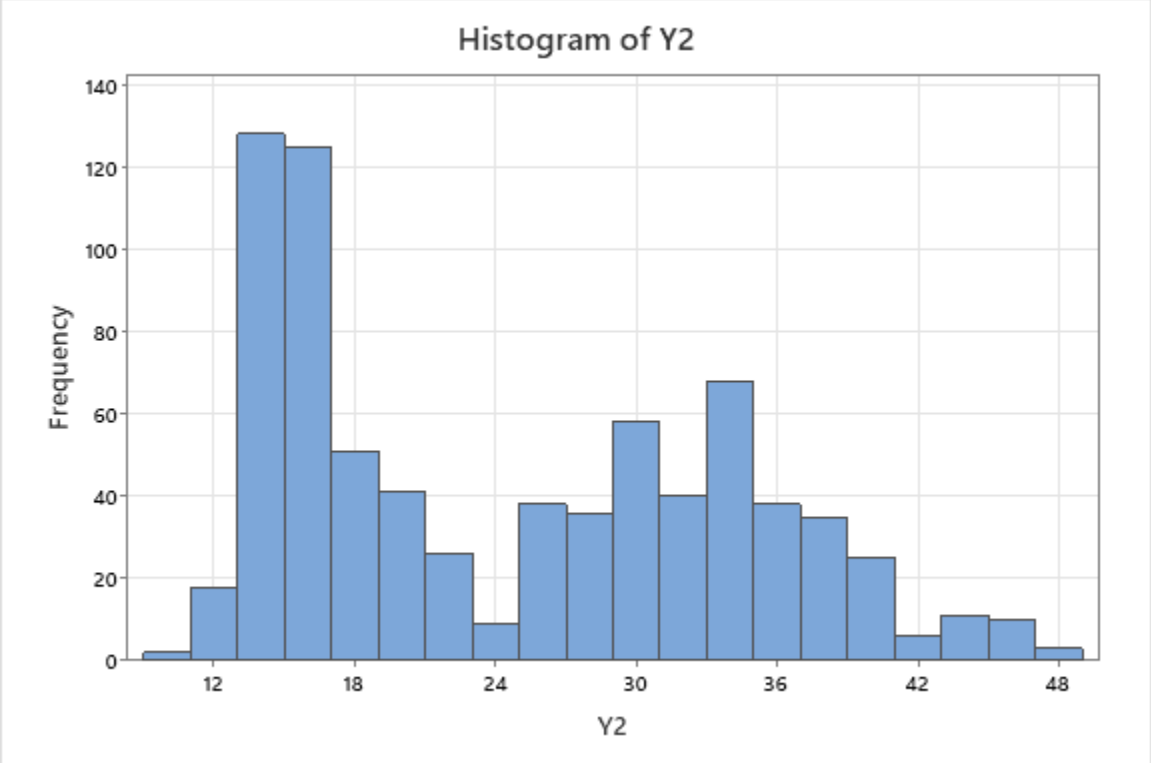
Statistics

Variable	N	N*	Mean	SE Mean	StDev	Minimum	Q1	Median	Q3	Maximum
X1	768	0	0.76417	0.00382	0.10578	0.62000	0.66750	0.75000	0.85000	0.98000
X2	768	0	671.71	3.18	88.09	514.50	594.13	673.75	753.38	808.50
X3	768	0	318.50	1.57	43.63	245.00	294.00	318.50	343.00	416.50
X4	768	0	176.60	1.63	45.17	110.25	128.63	183.75	220.50	220.50
X5	768	0	5.2500	0.0632	1.7511	3.5000	3.5000	5.2500	7.0000	7.0000
X6	768	0	3.5000	0.0404	1.1188	2.0000	2.2500	3.5000	4.7500	5.0000
X6	768	0	3.5000	0.0404	1.1188	2.0000	2.2500	3.5000	4.7500	5.0000
X7	768	0	0.23438	0.00481	0.13322	0.00000	0.10000	0.25000	0.40000	0.40000
X8	768	0	2.8125	0.0560	1.5510	0.0000	1.2500	3.0000	4.0000	5.0000
Y1	768	0	22.307	0.364	10.090	6.010	12.978	18.950	31.683	43.100
Y2	768	0	24.588	0.343	9.513	10.900	15.600	22.080	33.138	48.030

Variable	Mode	N for Mode	Skewness	Kurtosis
X1	0.62, 0.64, 0.66, 0.69	64	0.50	-0.71
X2	514.5, 563.5, 588, 612.5	64	-0.13	-1.06
X3	294, 318.5	192	0.53	0.12
X4	220.5	384	-0.16	-1.78
X5	3.5, 7	384	-0.00	-2.01
X6	2, 3, 4, 5	192	0.00	-1.36
X6	2, 3, 4, 5	192	0.00	-1.36
X7	0.1, 0.25, 0.4	240	-0.06	-1.33
X8	1, 2, 3, 4	144	-0.09	-1.15
Y1	15.16	6	0.36	-1.25
Y2	14.27, 14.28, 17.2, 21.33	4	0.40	-1.15

Histogram of Y1 , Y2





Regression Analysis: Y2 versus X1, X2, X3, X4, X5, X6, X7, X8

Regression Equation

Y2 = 97.2 - 70.8 X1 - 0.0882 X2 + 0.04468 X3 + 4.284 X5 + 0.122 X6
+ 14.717 X7 + 0.0407 X8

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	97.2	20.8	4.68	0.000	
X1	-70.8	11.2	-6.31	0.000	105.52
X2	-0.0882	0.0186	-4.74	0.000	201.53
X3	0.04468	0.00725	6.16	0.000	7.49
X5	4.284	0.369	11.62	0.000	31.21
X6	0.122	0.103	1.18	0.240	1.00
X7	14.717	0.888	16.57	0.000	1.05
X8	0.0407	0.0763	0.53	0.594	1.05

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
3.20119	88.78%	88.68%	88.56%

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	7	61627.6	8803.94	859.12	0.000
X1	1	407.5	407.52	39.77	0.000
X2	1	230.0	229.96	22.44	0.000
X3	1	389.0	388.96	37.96	0.000
X5	1	1383.2	1383.16	134.97	0.000
X6	1	14.2	14.17	1.38	0.240
X7	1	2814.6	2814.64	274.66	0.000
X8	1	2.9	2.92	0.28	0.594
Error	760	7788.2	10.25		
Total	767	69415.8			

Fits and Diagnostics for Unusual Observations

Obs	Y2	Fit	Resid	Std Resid	
14	21.460	29.732	-8.272	-2.60	R
15	21.160	29.854	-8.694	-2.73	R
17	37.730	30.667	7.063	2.22	R
20	39.440	31.032	8.408	2.65	R
63	24.610	31.366	-6.756	-2.12	R
65	41.680	32.180	9.500	2.98	R
68	43.330	32.544	10.786	3.39	R
111	24.800	31.407	-6.607	-2.07	R
113	41.070	32.220	8.850	2.78	R
116	42.860	32.585	10.275	3.22	R
160	24.930	31.569	-6.639	-2.08	R
161	43.120	32.261	10.859	3.41	R
162	41.220	32.383	8.837	2.77	R
205	24.610	31.245	-6.635	-2.08	R
208	25.160	31.610	-6.450	-2.03	R
210	43.300	32.423	10.877	3.41	R
211	41.860	32.545	9.315	2.92	R
254	24.770	31.408	-6.638	-2.08	R
259	43.140	32.586	10.554	3.31	R
260	41.260	32.707	8.553	2.69	R
305	43.800	34.387	9.413	2.95	R
308	45.520	34.752	10.768	3.38	R
350	26.960	33.493	-6.533	-2.05	R
351	26.720	33.615	-6.895	-2.16	R
353	43.860	34.428	9.432	2.96	R
356	45.970	34.793	11.177	3.51	R
399	26.950	33.655	-6.705	-2.10	R
400	26.410	33.777	-7.367	-2.31	R
401	45.130	34.469	10.661	3.34	R
402	43.660	34.590	9.070	2.84	R
445	26.300	33.453	-7.153	-2.24	R
448	27.340	33.818	-6.478	-2.03	R
450	45.480	34.631	10.849	3.40	R
451	44.160	34.752	9.408	2.95	R
493	26.530	33.494	-6.964	-2.19	R
494	26.080	33.615	-7.535	-2.36	R
499	45.280	34.793	10.487	3.29	R
500	43.730	34.915	8.815	2.77	R
536	40.990	34.564	6.426	2.02	R
542	29.130	35.660	-6.530	-2.05	R
543	28.990	35.782	-6.792	-2.13	R
545	45.290	36.595	8.695	2.73	R
548	46.940	36.959	9.981	3.14	R
590	27.930	35.701	-7.771	-2.44	R
591	28.950	35.822	-6.872	-2.16	R
593	45.590	36.636	8.954	2.81	R
596	48.030	37.000	11.030	3.46	R
641	46.440	36.676	9.764	3.06	R
642	44.180	36.798	7.382	2.31	R
685	28.200	35.661	-7.461	-2.34	R
688	28.430	36.025	-7.595	-2.38	R
690	47.590	36.838	10.752	3.37	R
691	46.230	36.960	9.270	2.91	R
739	47.010	37.001	10.009	3.14	R
740	44.870	37.122	7.748	2.43	R

R Large residual

in the top

x1,…x8 : we're good P_value

R_sq is high we can conclusion is a good model

Regression Analysis: Y1 versus X1, X2, X3, X4, X5, X6, X7, X8

Regression Equation

Y1 = 84.0 - 64.8 X1 - 0.0873 X2 + 0.06081 X3 + 4.170 X5 - 0.0233 X6 + 19.933 X7 + 0.2038 X8

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	84.0	19.0	4.41	0.000	
X1	-64.8	10.3	-6.30	0.000	105.52
X2	-0.0873	0.0171	-5.11	0.000	201.53
X3	0.06081	0.00665	9.15	0.000	7.49
X5	4.170	0.338	12.34	0.000	31.21
X6	-0.0233	0.0947	-0.25	0.805	1.00
X7	19.933	0.814	24.49	0.000	1.05
X8	0.2038	0.0699	2.91	0.004	1.05

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
2.93432	91.62%	91.54%	91.45%

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	7	71546.2	10220.9	1187.06	0.000
X1	1	341.2	341.2	39.63	0.000
X2	1	225.0	225.0	26.13	0.000
X3	1	720.5	720.5	83.68	0.000
X5	1	1310.6	1310.6	152.21	0.000
X6	1	0.5	0.5	0.06	0.805
X7	1	5163.1	5163.1	599.65	0.000
X8	1	73.1	73.1	8.49	0.004
Error	760	6543.8	8.6		
Total	767	78090.0			

Fits and Diagnostics for Unusual Observations

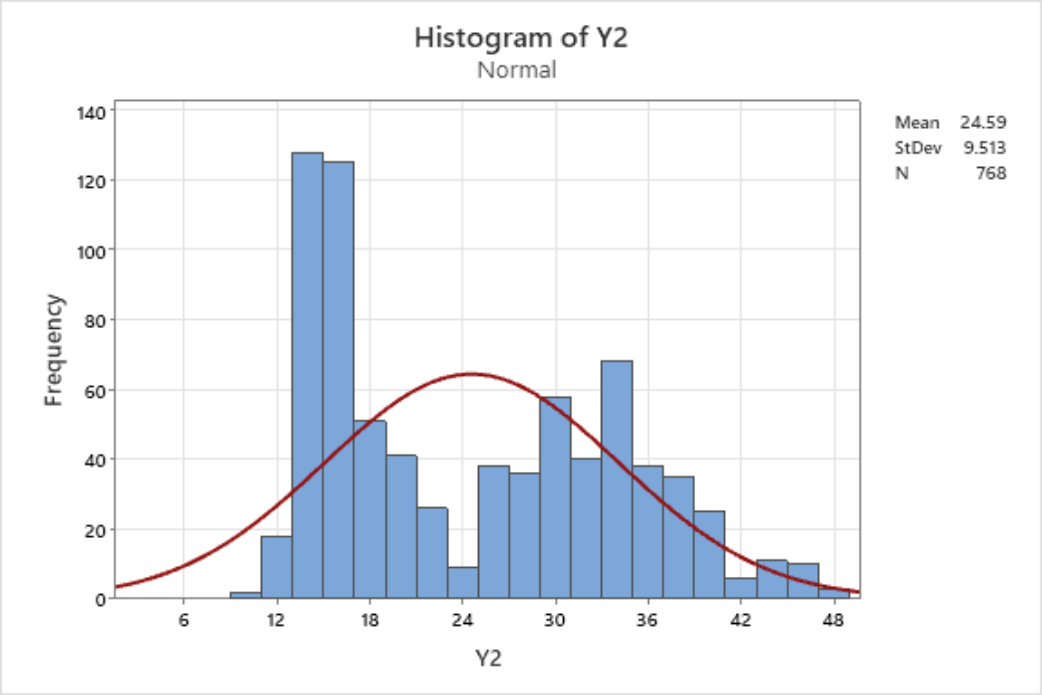
Obs	Y1	Fit	Resid	Std Resid	
1	15.550	22.647	-7.097	-2.44	R
2	15.550	22.624	-7.074	-2.43	R
3	15.550	22.601	-7.051	-2.43	R
4	15.550	22.577	-7.027	-2.42	R
13	17.050	25.946	-8.896	-3.05	R
14	17.410	25.923	-8.513	-2.92	R
15	16.950	25.900	-8.950	-3.07	R
16	15.980	25.877	-9.897	-3.40	R
21	24.770	31.515	-6.745	-2.33	R
22	23.930	31.492	-7.562	-2.60	R
23	24.770	31.469	-6.699	-2.31	R
24	23.930	31.445	-7.515	-2.59	R
65	35.560	29.438	6.122	2.10	R
66	37.120	29.415	7.705	2.64	R
67	36.900	29.391	7.509	2.57	R
68	35.940	29.368	6.572	2.25	R
113	35.650	29.642	6.008	2.06	R
114	37.260	29.619	7.641	2.61	R
115	36.970	29.595	7.375	2.52	R
116	36.030	29.572	6.458	2.21	R
161	35.780	29.846	5.934	2.03	R
163	36.970	29.799	7.171	2.45	R
164	36.700	29.776	6.924	2.37	R
206	22.800	28.732	-5.932	-2.03	R
209	36.860	30.049	6.811	2.33	R
210	35.890	30.026	5.864	2.01	R
212	37.100	29.979	7.121	2.44	R
255	22.890	28.912	-6.022	-2.06	R
257	37.030	30.253	6.777	2.32	R
258	36.710	30.230	6.480	2.22	R
259	36.770	30.207	6.563	2.25	R
305	38.670	32.428	6.242	2.14	R
306	40.030	32.405	7.625	2.61	R
307	39.860	32.381	7.479	2.56	R
308	39.040	32.358	6.682	2.29	R
351	25.380	31.291	-5.911	-2.02	R
352	24.940	31.267	-6.327	-2.16	R
353	38.570	32.632	5.938	2.03	R
354	40.190	32.608	7.582	2.59	R
355	39.970	32.585	7.385	2.52	R
356	38.980	32.562	6.418	2.20	R
397	24.700	31.541	-6.841	-2.34	R
398	25.480	31.518	-6.038	-2.06	R
399	25.370	31.494	-6.124	-2.09	R
400	25.170	31.471	-6.301	-2.16	R
401	39.040	32.836	6.204	2.12	R
403	39.810	32.789	7.021	2.40	R
404	39.830	32.766	7.064	2.42	R
445	25.660	31.745	-6.085	-2.08	R
446	24.960	31.721	-6.761	-2.31	R
447	25.430	31.698	-6.268	-2.14	R
449	40.000	33.039	6.961	2.38	R
452	40.120	32.969	7.151	2.45	R
493	25.700	31.949	-6.249	-2.14	R
494	25.170	31.925	-6.755	-2.31	R
495	24.600	31.902	-7.302	-2.50	R
496	25.490	31.879	-6.389	-2.19	R
497	39.890	33.243	6.647	2.28	R
498	39.830	33.220	6.610	2.26	R
545	41.400	35.418	5.982	2.05	R
546	42.620	35.395	7.225	2.48	R

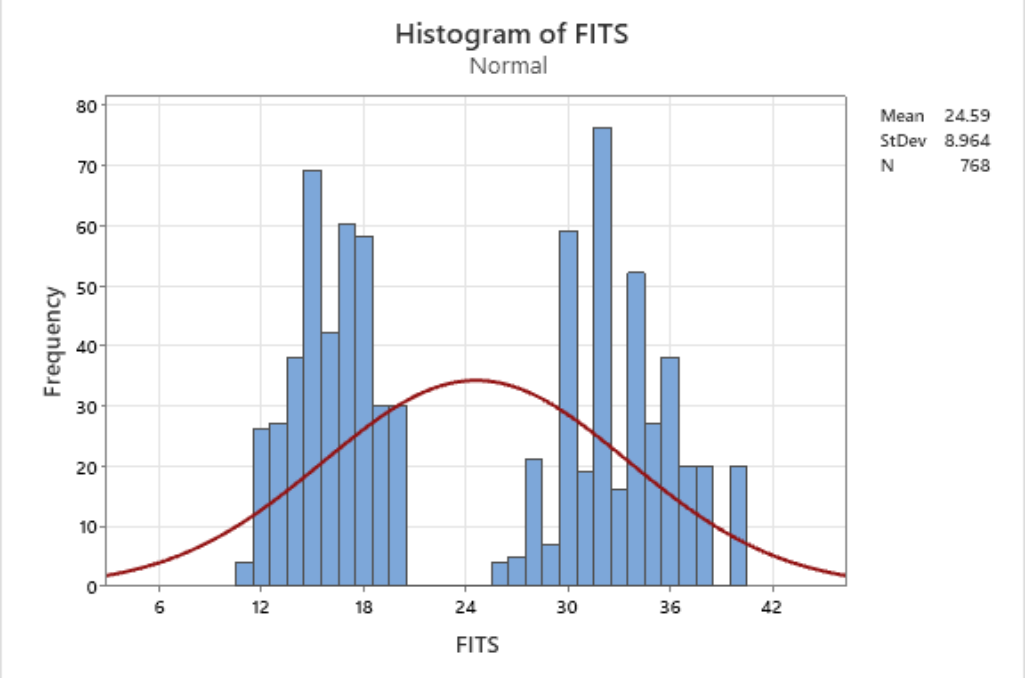
547	42.500	35.371	7.129	2.44	R
548	41.670	35.348	6.322	2.17	R
592	28.010	34.257	-6.247	-2.14	R
593	41.640	35.622	6.018	2.06	R
594	43.100	35.598	7.502	2.57	R
595	42.740	35.575	7.165	2.45	R
596	41.920	35.552	6.368	2.18	R
637	28.670	34.531	-5.861	-2.01	R
643	42.490	35.779	6.711	2.30	R
644	42.080	35.755	6.325	2.17	R
686	28.050	34.711	-6.661	-2.28	R
687	28.640	34.688	-6.048	-2.07	R
689	42.770	36.029	6.741	2.31	R
692	42.960	35.959	7.001	2.40	R
737	42.110	36.233	5.877	2.01	R

R Large residual

At the top we're better than model of Y2 because R_sq and P_value are high and good .

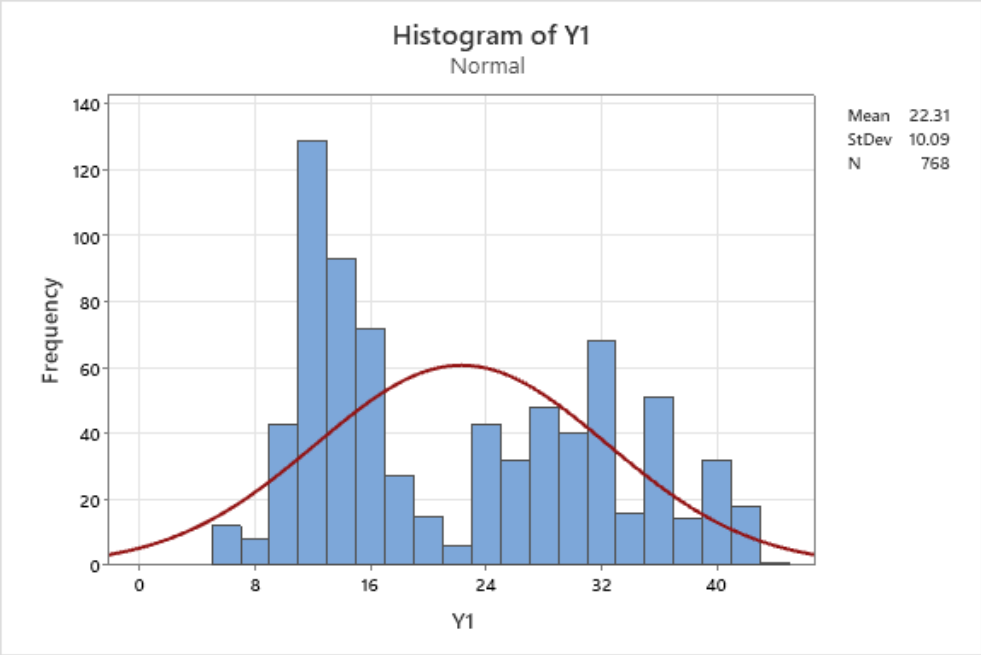
Histogram of Y2,FIT

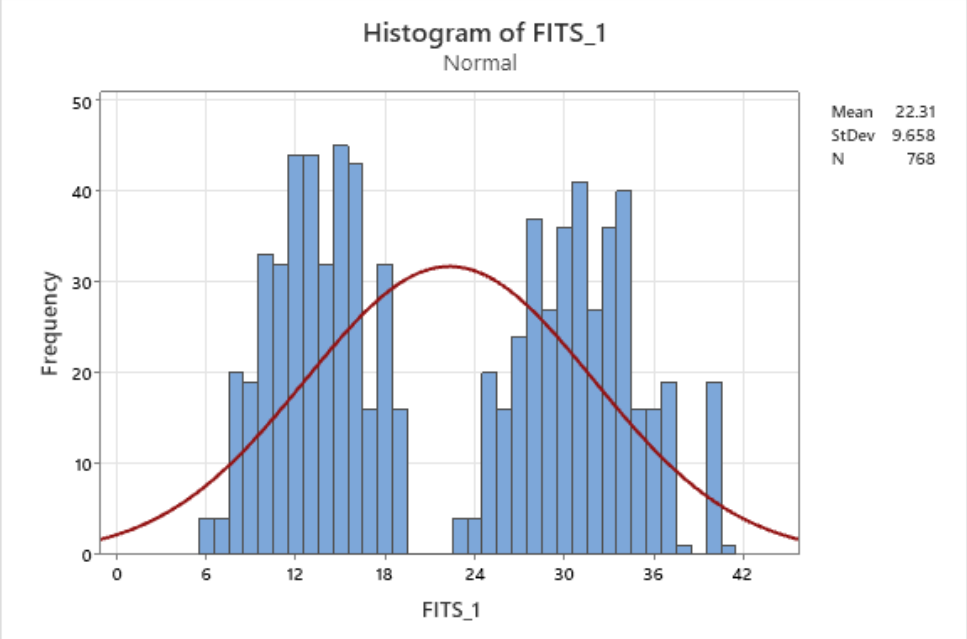




THESE ARE NOT NORMAL

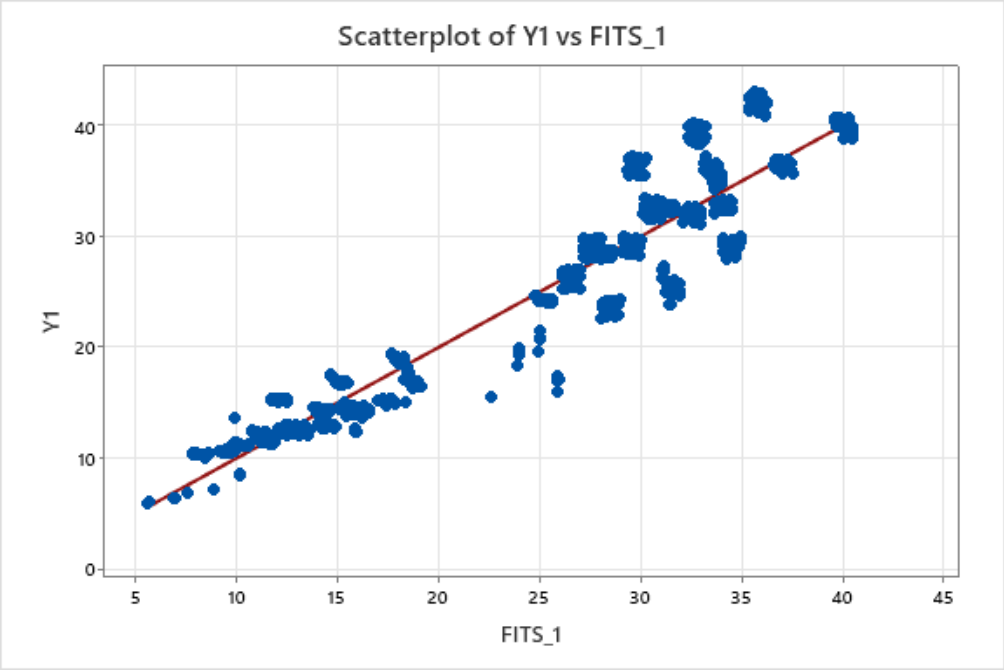
Histogram of Y1,FIT_1



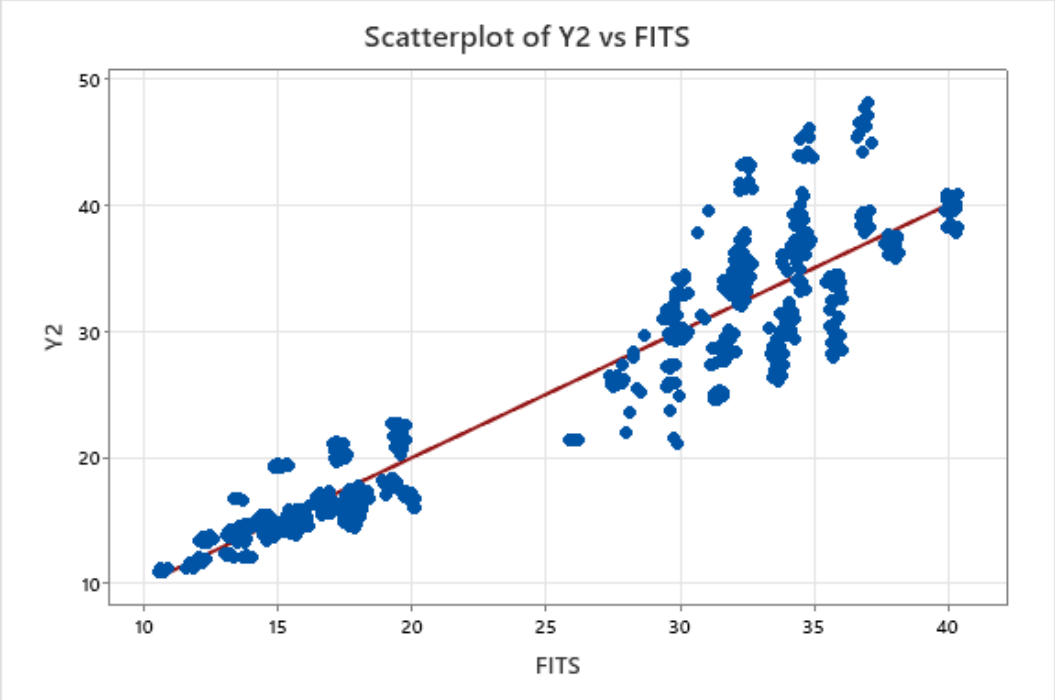


It is almost normal in this model

Scatterplot Y1,Fit1



Scatterplot Y2,FIT



There is a lot of dispersion in both models

Regression Analysis: Y2 versus FITS

Regression Equation

Y2 = -0.000 + 1.0000 FITS

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0.000	0.336	-0.00	1.000	
FITS	1.0000	0.0128	77.85	0.000	1.00

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
3.18863	88.78%	88.77%	88.72%

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	1	61628	61627.6	6061.31	0.000
FITS	1	61628	61627.6	6061.31	0.000
Error	766	7788	10.2		
Total	767	69416			

Fits and Diagnostics for Unusual Observations

Obs	Y2	Fit	Resid	Std Resid	
14	21.460	29.732	-8.272	-2.60	R
15	21.160	29.854	-8.694	-2.73	R
17	37.730	30.667	7.063	2.22	R
20	39.440	31.032	8.408	2.64	R
63	24.610	31.366	-6.756	-2.12	R
65	41.680	32.180	9.500	2.98	R
68	43.330	32.544	10.786	3.39	R
111	24.800	31.407	-6.607	-2.07	R
113	41.070	32.220	8.850	2.78	R
116	42.860	32.585	10.275	3.23	R
160	24.930	31.569	-6.639	-2.08	R
161	43.120	32.261	10.859	3.41	R
162	41.220	32.383	8.837	2.77	R
205	24.610	31.245	-6.635	-2.08	R
208	25.160	31.610	-6.450	-2.02	R
210	43.300	32.423	10.877	3.42	R
211	41.860	32.545	9.315	2.92	R
254	24.770	31.408	-6.638	-2.08	R
259	43.140	32.586	10.554	3.31	R
260	41.260	32.707	8.553	2.69	R
305	43.800	34.387	9.413	2.96	R
308	45.520	34.752	10.768	3.38	R
350	26.960	33.493	-6.533	-2.05	R
351	26.720	33.615	-6.895	-2.17	R
353	43.860	34.428	9.432	2.96	R
356	45.970	34.793	11.177	3.51	R
399	26.950	33.655	-6.705	-2.11	R
400	26.410	33.777	-7.367	-2.31	R
401	45.130	34.469	10.661	3.35	R

402	43.660	34.590	9.070	2.85	R
445	26.300	33.453	-7.153	-2.25	R
448	27.340	33.818	-6.478	-2.03	R
450	45.480	34.631	10.849	3.41	R
451	44.160	34.752	9.408	2.95	R
493	26.530	33.494	-6.964	-2.19	R
494	26.080	33.615	-7.535	-2.37	R
499	45.280	34.793	10.487	3.29	R
500	43.730	34.915	8.815	2.77	R
536	40.990	34.564	6.426	2.02	R
542	29.130	35.660	-6.530	-2.05	R
543	28.990	35.782	-6.792	-2.13	R
545	45.290	36.595	8.695	2.73	R
548	46.940	36.959	9.981	3.14	R
590	27.930	35.701	-7.771	-2.44	R
591	28.950	35.822	-6.872	-2.16	R
593	45.590	36.636	8.954	2.81	R
596	48.030	37.000	11.030	3.47	R
641	46.440	36.676	9.764	3.07	R
642	44.180	36.798	7.382	2.32	R
685	28.200	35.661	-7.461	-2.34	R
688	28.430	36.025	-7.595	-2.39	R
690	47.590	36.838	10.752	3.38	R
691	46.230	36.960	9.270	2.91	R
739	47.010	37.001	10.009	3.15	R
740	44.870	37.122	7.748	2.43	R

R Large residual

Regression Analysis: Y1 versus FITS_1

Regression Equation

Y1 = -0.000 + 1.0000 FITS_1

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	-0.000	0.266	-0.00	1.000	
FITS_1	1.0000	0.0109	91.52	0.000	1.00

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
2.92280	91.62%	91.61%	91.58%

Analysis of Variance

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	1	71546	71546.2	8375.05	0.000
FITS_1	1	71546	71546.2	8375.05	0.000
Error	766	6544	8.5		
Total	767	78090			

Fits and Diagnostics for Unusual Observations

Obs	Y1	Fit	Resid	Std Resid	
1	15.550	22.647	-7.097	-2.43	R
2	15.550	22.624	-7.074	-2.42	R
3	15.550	22.601	-7.051	-2.41	R
4	15.550	22.577	-7.027	-2.41	R
13	17.050	25.946	-8.896	-3.05	R
14	17.410	25.923	-8.513	-2.91	R
15	16.950	25.900	-8.950	-3.06	R
16	15.980	25.877	-9.897	-3.39	R
21	24.770	31.515	-6.745	-2.31	R
22	23.930	31.492	-7.562	-2.59	R
23	24.770	31.469	-6.699	-2.29	R
24	23.930	31.445	-7.515	-2.57	R
65	35.560	29.438	6.122	2.10	R
66	37.120	29.415	7.705	2.64	R
67	36.900	29.391	7.509	2.57	R
68	35.940	29.368	6.572	2.25	R
113	35.650	29.642	6.008	2.06	R
114	37.260	29.619	7.641	2.62	R
115	36.970	29.595	7.375	2.53	R
116	36.030	29.572	6.458	2.21	R
161	35.780	29.846	5.934	2.03	R
163	36.970	29.799	7.171	2.46	R
164	36.700	29.776	6.924	2.37	R
206	22.800	28.732	-5.932	-2.03	R
209	36.860	30.049	6.811	2.33	R
210	35.890	30.026	5.864	2.01	R
212	37.100	29.979	7.121	2.44	R
255	22.890	28.912	-6.022	-2.06	R
257	37.030	30.253	6.777	2.32	R
258	36.710	30.230	6.480	2.22	R
259	36.770	30.207	6.563	2.25	R
305	38.670	32.428	6.242	2.14	R
306	40.030	32.405	7.625	2.61	R
307	39.860	32.381	7.479	2.56	R
308	39.040	32.358	6.682	2.29	R
351	25.380	31.291	-5.911	-2.02	R
352	24.940	31.267	-6.327	-2.17	R
353	38.570	32.632	5.938	2.03	R
354	40.190	32.608	7.582	2.60	R
355	39.970	32.585	7.385	2.53	R
356	38.980	32.562	6.418	2.20	R
397	24.700	31.541	-6.841	-2.34	R
398	25.480	31.518	-6.038	-2.07	R
399	25.370	31.494	-6.124	-2.10	R
400	25.170	31.471	-6.301	-2.16	R
401	39.040	32.836	6.204	2.13	R
403	39.810	32.789	7.021	2.41	R

404	39.830	32.766	7.064	2.42	R
445	25.660	31.745	-6.085	-2.08	R
446	24.960	31.721	-6.761	-2.32	R
447	25.430	31.698	-6.268	-2.15	R
449	40.000	33.039	6.961	2.38	R
452	40.120	32.969	7.151	2.45	R
493	25.700	31.949	-6.249	-2.14	R
494	25.170	31.925	-6.755	-2.31	R
495	24.600	31.902	-7.302	-2.50	R
496	25.490	31.879	-6.389	-2.19	R
497	39.890	33.243	6.647	2.28	R
498	39.830	33.220	6.610	2.26	R
545	41.400	35.418	5.982	2.05	R
546	42.620	35.395	7.225	2.48	R
547	42.500	35.371	7.129	2.44	R
548	41.670	35.348	6.322	2.17	R
592	28.010	34.257	-6.247	-2.14	R
593	41.640	35.622	6.018	2.06	R
594	43.100	35.598	7.502	2.57	R
595	42.740	35.575	7.165	2.46	R
596	41.920	35.552	6.368	2.18	R
637	28.670	34.531	-5.861	-2.01	R
643	42.490	35.779	6.711	2.30	R
644	42.080	35.755	6.325	2.17	R
686	28.050	34.711	-6.661	-2.28	R
687	28.640	34.688	-6.048	-2.07	R
689	42.770	36.029	6.741	2.31	R
692	42.960	35.959	7.001	2.40	R
737	42.110	36.233	5.877	2.01	R

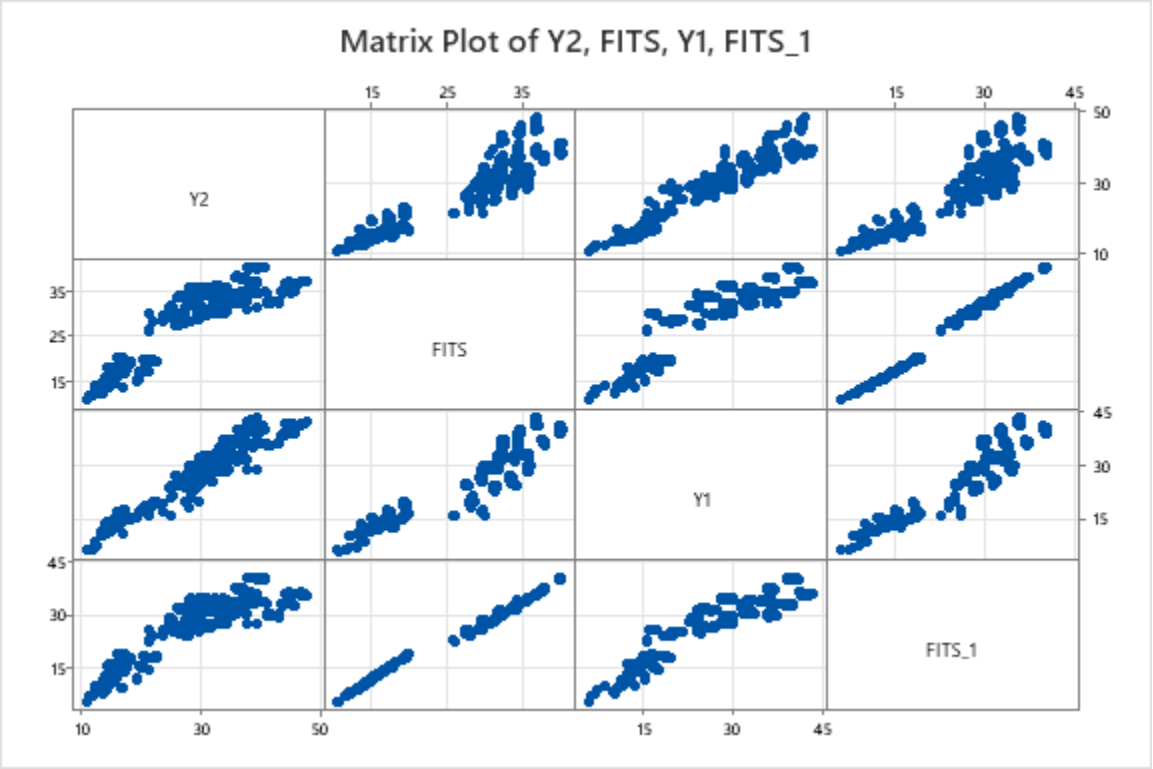
R Large residual

In regression analysis of Y1,Y2 with FIT , FIT_1

Y1 is better than Y2 it’s mean it is a good model

Because there are high value in this analysis for example value of P_value or R_sq

Matrix Plot of Y2, FITS, Y1, FITS_1



The dispersions are very high

Regression Analysis: Y2 versus RESI

Regression Equation

Y2 = 24.588 + 1.000 RESI

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	24.588	0.324	75.97	0.000	
RESI	1.000	0.102	9.84	0.000	1.00

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
8.96960	11.22%	11.10%	10.75%

Analysis of Variance

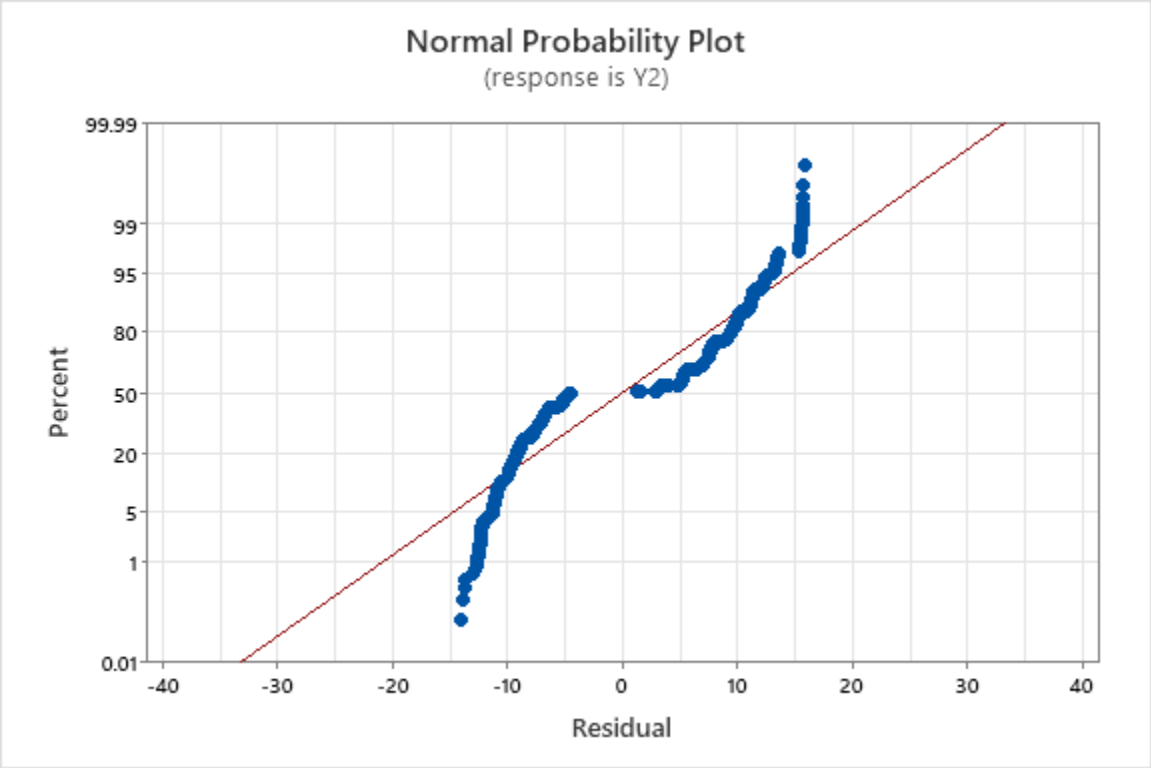
Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	1	7788	7788.20	96.80	0.000
RESI	1	7788	7788.20	96.80	0.000
Error	766	61628	80.45		
Total	767	69416			

Fits and Diagnostics for Unusual Observations

Obs	Y2	Fit	Resid	Std Resid	
14	21.460	16.315	5.145	0.58	X
15	21.160	15.894	5.266	0.59	X
20	39.440	32.996	6.444	0.72	X
65	41.680	34.088	7.592	0.85	X
68	43.330	35.374	7.956	0.89	X
113	41.070	33.437	7.633	0.86	X
116	42.860	34.863	7.997	0.90	X
161	43.120	35.447	7.673	0.86	X
162	41.220	33.425	7.795	0.87	X
210	43.300	35.464	7.836	0.88	X
211	41.860	33.903	7.957	0.89	X
259	43.140	35.142	7.998	0.90	X
260	41.260	33.141	8.119	0.91	X
305	43.800	34.000	9.800	1.10	X
308	45.520	35.356	10.164	1.14	X
353	43.860	34.020	9.840	1.10	X
356	45.970	35.765	10.205	1.15	X
400	26.410	17.221	9.189	1.03	X
401	45.130	35.249	9.881	1.11	X
402	43.660	33.658	10.002	1.12	X
445	26.300	17.435	8.865	0.99	X
450	45.480	35.437	10.043	1.13	X
451	44.160	33.995	10.165	1.14	X
494	26.080	17.053	9.027	1.01	X
499	45.280	35.075	10.205	1.15	X
500	43.730	33.403	10.327	1.16	X
545	45.290	33.283	12.007	1.35	X
548	46.940	34.568	12.372	1.39	X
590	27.930	16.817	11.113	1.24	X

593	45.590	33.542	12.048	1.35 X
596	48.030	35.618	12.412	1.40 X
641	46.440	34.352	12.088	1.36 X
642	44.180	31.970	12.210	1.37 X
685	28.200	17.127	11.073	1.24 X
688	28.430	16.993	11.437	1.28 X
690	47.590	35.339	12.251	1.38 X
691	46.230	33.858	12.372	1.39 X
739	47.010	34.597	12.413	1.39 X
740	44.870	32.336	12.534	1.40 X

X Unusual X



Regression Analysis: Y1 versus RESI_1

Regression Equation

Y1 = 22.307 + 1.000 RESI_1

Coefficients

Term	Coef	SE Coef	T-Value	P-Value	VIF
Constant	22.307	0.349	63.97	0.000	
RESI_1	1.000	0.119	8.37	0.000	1.00

Model Summary

S	R-sq	R-sq(adj)	R-sq(pred)
9.66449	8.38%	8.26%	7.91%

Analysis of Variance

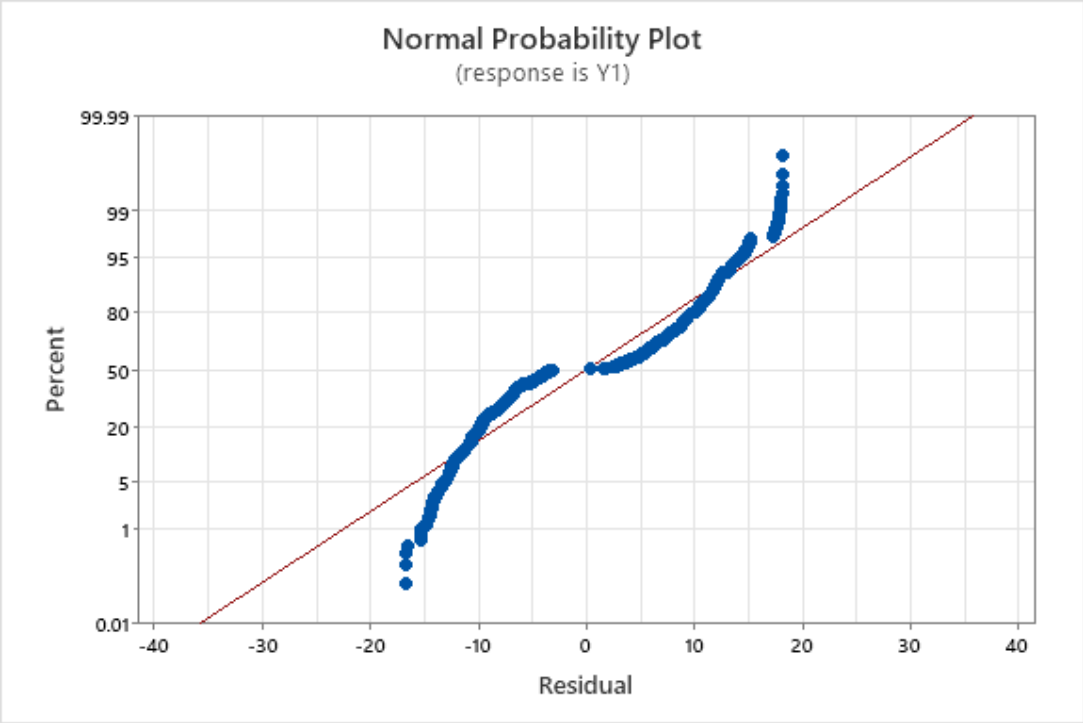
Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	1	6544	6543.77	70.06	0.000
RESI_1	1	6544	6543.77	70.06	0.000
Error	766	71546	93.40		
Total	767	78090			

Fits and Diagnostics for Unusual Observations

Obs	Y1	Fit	Resid	Std Resid	
1	15.550	15.210	0.340	0.04	X
2	15.550	15.233	0.317	0.03	X
3	15.550	15.257	0.293	0.03	X
4	15.550	15.280	0.270	0.03	X
13	17.050	13.411	3.639	0.38	X
14	17.410	13.794	3.616	0.38	X
15	16.950	13.357	3.593	0.37	X
16	15.980	12.411	3.569	0.37	X
21	24.770	15.562	9.208	0.96	X
22	23.930	14.745	9.185	0.96	X
23	24.770	15.608	9.162	0.95	X
24	23.930	14.792	9.138	0.95	X
66	37.120	30.012	7.108	0.74	X
67	36.900	29.816	7.084	0.74	X
68	35.940	28.879	7.061	0.73	X
114	37.260	29.949	7.311	0.76	X
115	36.970	29.682	7.288	0.76	X
163	36.970	29.478	7.492	0.78	X
164	36.700	29.232	7.468	0.78	X
209	36.860	29.118	7.742	0.80	X
212	37.100	29.428	7.672	0.80	X
257	37.030	29.084	7.946	0.83	X
259	36.770	28.871	7.899	0.82	X
306	40.030	29.933	10.097	1.05	X
307	39.860	29.786	10.074	1.05	X
308	39.040	28.989	10.051	1.04	X
354	40.190	29.889	10.301	1.07	X
355	39.970	29.692	10.278	1.07	X
397	24.700	15.466	9.234	0.96	X

403	39.810	29.328	10.482	1.09 X
404	39.830	29.372	10.458	1.09 X
446	24.960	15.546	9.414	0.98 X
449	40.000	29.268	10.732	1.12 X
452	40.120	29.458	10.662	1.11 X
494	25.170	15.552	9.618	1.00 X
495	24.600	15.005	9.595	1.00 X
497	39.890	28.954	10.936	1.14 X
498	39.830	28.917	10.913	1.13 X
546	42.620	29.533	13.087	1.36 X
547	42.500	29.436	13.064	1.36 X
594	43.100	29.809	13.291	1.38 X
595	42.740	29.472	13.268	1.38 X
643	42.490	29.018	13.472	1.40 X
686	28.050	15.646	12.404	1.29 X
689	42.770	29.048	13.722	1.43 X
692	42.960	29.308	13.652	1.42 X

X Unusual X



We did not get good models in this style at all

Y1 and RESI