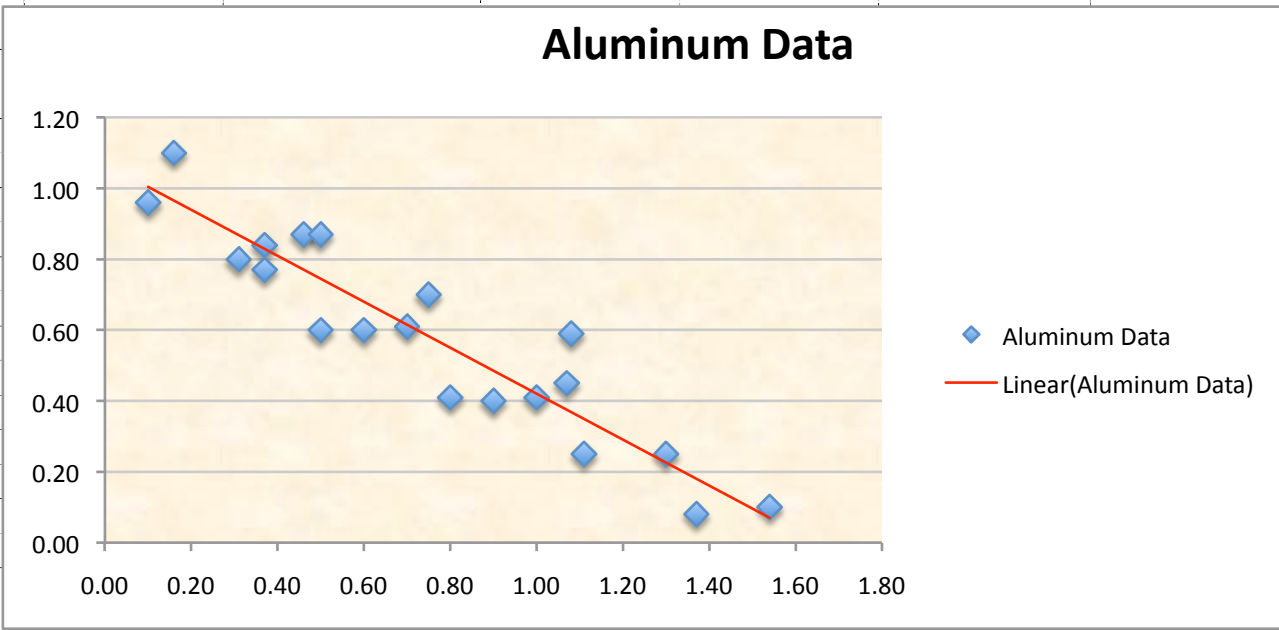


Math 3080 - 1	Aluminum Data		Feb. 3,2010					
Treibergs								
From "Probability and Statistics for Engineering and the Sciences 4th ed" by Devore								
From "Effect of melt cleanliness...", Metallurgical Transactions 1993								
x = volume fraction of oxide inclusion								
y = percent elongation of Aluminum test bar								
	x	y	x ²	xy	y ²	\hat{y}	Resid	e ²
	0.10	0.96	0.0100	0.0960	0.9216	1.0044	-0.0444	0.0020
	0.16	1.10	0.0256	0.1760	1.2100	0.9655	0.1345	0.0181
	0.31	0.80	0.0961	0.2480	0.6400	0.8682	-0.0682	0.0046
	0.37	0.84	0.1369	0.3108	0.7056	0.8292	0.0108	0.0001
	0.37	0.77	0.1369	0.2849	0.5929	0.8292	-0.0592	0.0035
	0.46	0.87	0.2116	0.4002	0.7569	0.7708	0.0992	0.0098
	0.50	0.60	0.2500	0.3000	0.3600	0.7449	-0.1449	0.0210
	0.50	0.87	0.2500	0.4350	0.7569	0.7449	0.1251	0.0157
	0.60	0.60	0.3600	0.3600	0.3600	0.6800	-0.0800	0.0064
	0.70	0.61	0.4900	0.4270	0.3721	0.6151	-0.0051	0.0000
	0.75	0.70	0.5625	0.5250	0.4900	0.5827	0.1173	0.0138
	0.80	0.41	0.6400	0.3280	0.1681	0.5502	-0.1402	0.0197
	0.90	0.40	0.8100	0.3600	0.1600	0.4853	-0.0853	0.0073
	1.00	0.41	1.0000	0.4100	0.1681	0.4205	-0.0105	0.0001
	1.07	0.45	1.1449	0.4815	0.2025	0.3750	0.0750	0.0056
	1.08	0.59	1.1664	0.6372	0.3481	0.3686	0.2214	0.0490
	1.11	0.25	1.2321	0.2775	0.0625	0.3491	-0.0991	0.0098
	1.30	0.25	1.6900	0.3250	0.0625	0.2258	0.0242	0.0006
	1.37	0.08	1.8769	0.1096	0.0064	0.1804	-0.1004	0.0101
	1.54	0.10	2.3716	0.1540	0.0100	0.0701	0.0299	0.0009
sum	14.99	11.66	14.4615	6.6457	8.3542	11.6600	0.0000	0.1981
avg	0.7495	0.5830						
n	20							

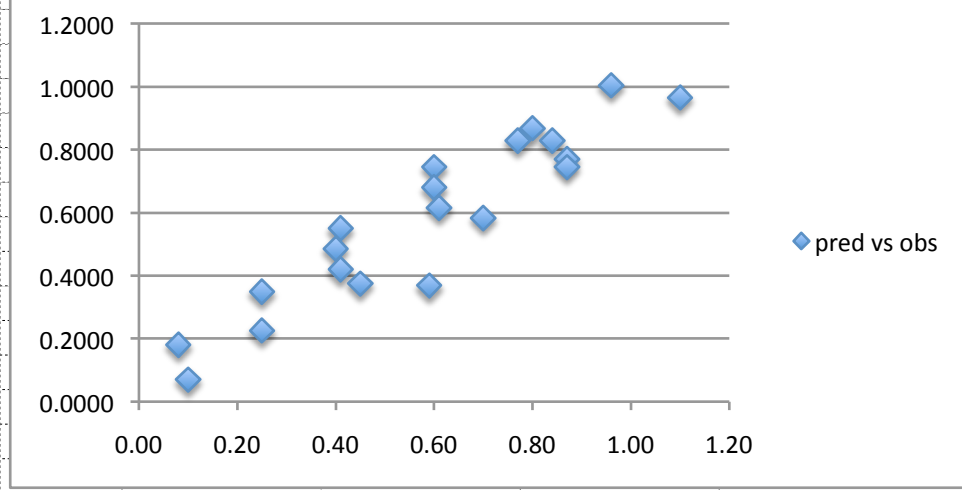
Sxx	3.226495	Source	DF	SS	MS	F	P
Sxy	-2.093470	Regr=SSR	1	1.3583	1.3583	123.4222	1.7279E-09
Syy	1.556420	Error=SSE	18	0.1981	0.0110		
RSq	0.872722	Total=SST	19	1.5564			
RSq(Adj)	0.865650						
S	0.104907						
LINEST							
		-0.64883721	1.069303486	B1	B0		
		0.05840354	0.049662756	StD(B1)	StD(B0)		
		0.87272152	0.104907042	RSq	S		
		123.422177	18	F	df		
		1.35832123	0.198098775	MSR	MSE		
	Coef	StDev	T-ratio	P(X > T)			
B1	-0.648837	0.058404	-11.109553	1.727886E-09			
B0	1.069303	0.049663	21.531296	2.685395E-14			



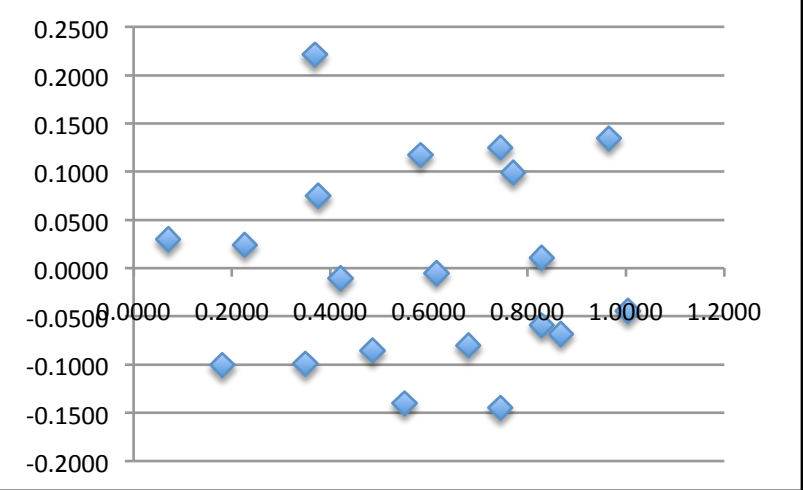
pred vs obs

resid vs y

pred vs obs



resid vs y



Resid vs x

