

Tutorial 11

Week of April 1, 2019

Question 10.1.10, Page 420

Solution found in Winter 2018 file ANOVA and Regression Proofs.pdf.

Question 10.1.6, Page 419

An article reports the following data on total Fe for four types of iron formation (1 = carbonate, 2 = silicate, 3 = magnetite, 4 = hematite).

Category	Fe Amount									
1	20.5	28.1	27.8	27.0	28.0	25.2	25.3	27.1	20.5	31.3
2	26.3	24.0	26.2	20.2	23.7	34.0	17.1	26.8	23.7	24.9
3	29.5	34.0	27.5	29.4	27.9	26.2	29.9	29.5	30.0	35.6
4	36.5	44.2	34.1	30.3	31.4	33.1	34.1	32.9	36.3	25.5

Carry out an analysis of variance F -test at significance level 0.01, and summarize the results in an ANOVA table.

Question 10.1.7, Page 419

An experiment was carried out to compare electrical resistivity for six different low-permeability concrete bridge deck mixtures. There were 26 measurements on concrete cylinders for each mixture; these were obtained 28 days after casting. Fill in the missing entries and test appropriate hypotheses.

Source	df	SS	MS	F-value
Mixture	a	d	g	F
Error	b	e	13.929	
Total	c	5664.415		