

## PISc 724 - HOMEWORK # 8

Given the following data set:

Treatment	Replicate		
	1	2	3
$a_0b_0c_0$	12	22	25
$a_0b_0c_1$	18	29	29
$a_0b_1c_0$	16	25	28
$a_0b_1c_1$	24	37	37
$a_1b_0c_0$	18	32	31
$a_1b_0c_1$	27	41	39
$a_1b_1c_0$	23	32	35
$a_1b_1c_1$	31	41	42
$a_2b_0c_0$	25	35	41
$a_2b_0c_1$	36	51	49
$a_2b_1c_0$	28	36	45
$a_2b_1c_1$	41	50	60

- Perform the ANOVA assuming the data was collected from an experiment conducted using a randomized complete block design. Assume treatments A, B, and C are fixed effects.
- Using the data from the ANOVA in part a, calculate lsd's for all sources of variation except replicate and error regardless if the source of variation is significant.
- Perform the ANOVA assuming the data was collected from an experiment conducted using a completely random design. Assume treatment A and B are random effects and treatment C is a fixed effect.
- Using the data from the ANOVA in part c, calculate lsd's for all sources of variation except error regardless if the source of variation is significant.