

### Homework 3

1. Confirm the expression for  $E(\bar{y}_{3..})$  at the bottom of page 163.
2. Problem 11.3 (a)-(d). For parts (a), (b), and (d) analyze the data, while justifying your choice of analysis. For (c), interpret only Type III and Type IV hypotheses from SAS output; carefully explain Type III and Type IV hypotheses for both BDA and TZ main effects.
3. Consider the following simulation in which the response is the test size (the target is .05). Four different methods are studied at four different sample sizes for four different distributions. Analyze the data, and comment on the residual plot. Which methods would you recommend?

Method	Sample Size			
	10	15	50	100
I	D=.114	A=.085	C=.065	B=.007
II	C=.123	B=.103	D=.106	A=.062
III	A=.147	C=.146	B=.100	D=.046
IV	B=.177	D=.146	A=.144	C=.103