

## ASSIGNMENT 12

Three separate two-period cross-over studies were performed based on different groups of subjects. In study 1 0.625 mg estrogen was compared with placebo. In study 2, 1.25mg estrogen was compared with placebo. In study 3, 1.25 mg estrogen was compared with 0.625 mg estrogen. Subjects received treatment for 4 weeks in each active treatment period; a 2-week washout period separated the two active periods. Data are given in file estrogen.dat and have the following form:

COLUMN	LABEL
1-2	ID
4	STUDY TYPE 1=0.625MG VS PLACEBO 2=1.25MG VS PLACEBO 3=1.25MG VS 0.625MG
6	PERIOD
8	TREATMENT 1=PLACEBO 2=0.625MG 3=1.25MG
10-12	SYSTOLIC BP DAY 1 READING 1
14-16	DIASTOLIC BP DAY 1 READING 1 (MISSING=999)
18-20	SYSTOLIC BP DAY 1 READING 2 (MISSING=999)
22-24	DIASTOLIC BP DAY 1 READING 2 (MISSING=999)
26-28	SYSTOLIC BP DAY 1 READING 3 (MISSING=999)
30-32	DIASTOLIC BP DAY 1 READING 3 (MISSING=999)
34-36	SYSTOLIC BP DAY 2 READING 1 (MISSING=999)
38-40	DIASTOLIC BP DAY 2 READING 1
42-44	SYSTOLIC BP DAY 2 READING 2
46-48	DIASTOLIC BP DAY 2 READING 2
50-52	SYSTOLIC BP DAY 2 READING 3
54-56	DIASTOLIC BP DAY 2 READING 3
58-60	SYSTOLIC BP DAY 3 READING 1
62-64	DIASTOLIC BP DAY 3 READING 1
66-68	SYSTOLIC BP DAY 3 READING 2
70-72	DIASTOLIC BP DAY 3 READING 2
74-76	SYSTOLIC BP DAY 3 READING 3
78-80	DIASTOLIC BP DAY 3 READING 3

Construct a model to estimate the treatment and carry over effects for study 3 (study type=3) for diastolic blood pressure.