

## Week 7 Assignment

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1. Since the GUI version of SAS UE does NOT support MANOVA, this part will focus on ANOVA. For the data set associated with this homework (HBAT200.sav), reproduce Tables 5, 6 and 7 and figure 6 (SeeTables.pdf). You may not be able to reproduce all (similar) entries

Table 5:

Class Level Information		
Class	Levels	Values
x5	2	0 1

Number of Observations Read	100
Number of Observations Used	100

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Dependent Variable: x19 x19					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	38.0186322	38.0186322	36.31	<.0001
Error	98	102.6089678	1.0470303		
Corrected Total	99	140.6276000			

R-Square	Coeff Var	Root MSE	x19 Mean
0.270350	14.79105	1.023245	6.918000

Class Level Information		
Class	Levels	Values
x5	2	0 1

Number of Observations Read	100
Number of Observations Used	100

Dependent Variable: x20 x20

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	17.2130396	17.2130396	18.63	<.0001
Error	98	90.5469604	0.9239486		
Corrected Total	99	107.7600000			

R-Square	Coeff Var	Root MSE	x20 Mean
0.159735	13.69263	0.961222	7.020000

Class Level Information		
Class	Levels	Values
x5	2	0 1

Number of Observations Read	100
Number of Observations Used	100

Dependent Variable: x21 x21

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	16.38684949	16.38684949	22.82	<.0001
Error	98	70.36625051	0.71802296		
Corrected Total	99	86.75310000			

R-Square	Coeff Var	Root MSE	x21 Mean
0.188891	10.98616	0.847362	7.713000

**Table 6:**

Dependent Variable: x19 x19					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	38.0186322	38.0186322	36.31	<.0001
Error	98	102.6089678	1.0470303		
Corrected Total	99	140.6276000			

Dependent Variable: x20 x20					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	17.2130396	17.2130396	18.63	<.0001
Error	98	90.5469604	0.9239486		
Corrected Total	99	107.7600000			

Dependent Variable: x21 x21					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	16.38684949	16.38684949	22.82	<.0001
Error	98	70.36625051	0.71802296		
Corrected Total	99	86.75310000			

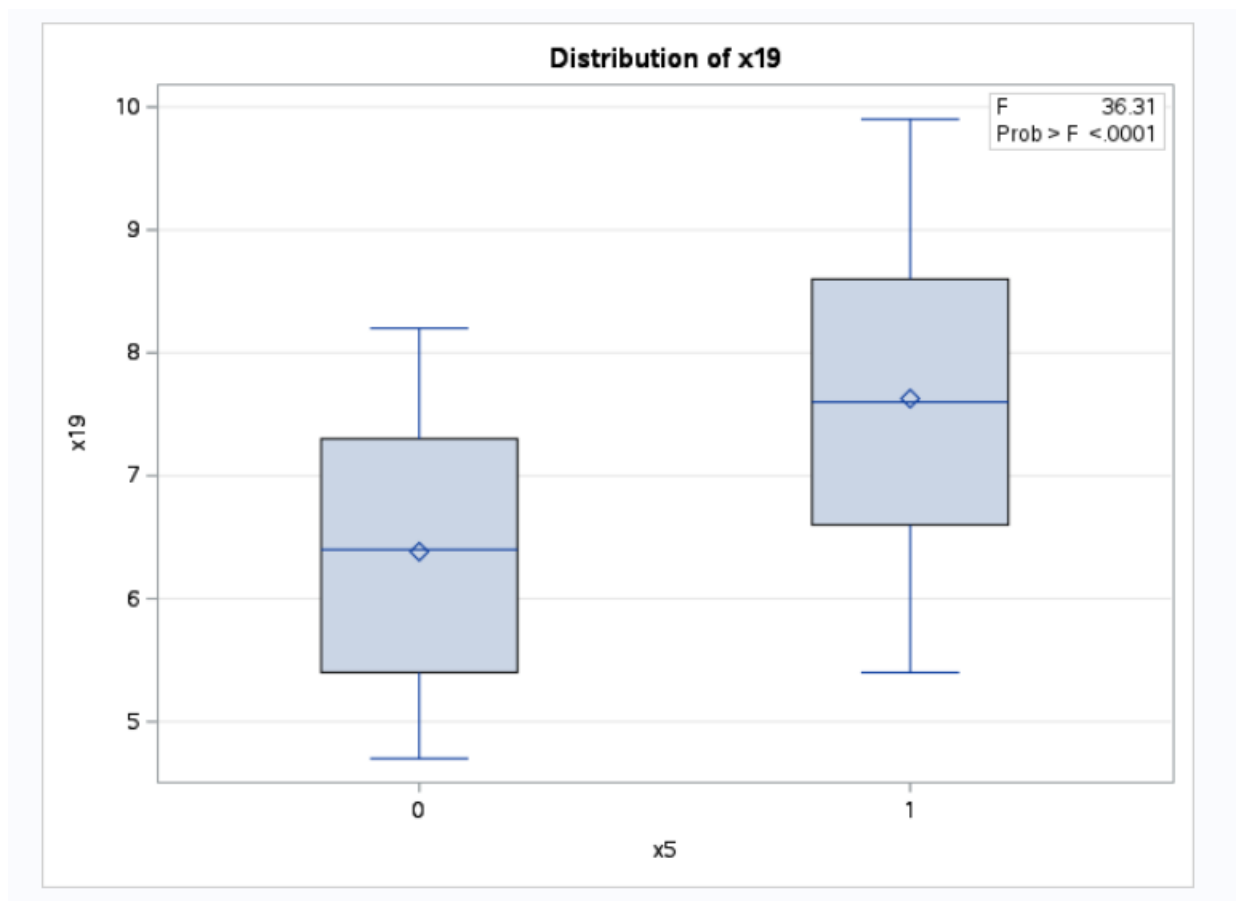
### Bartlett's Test:

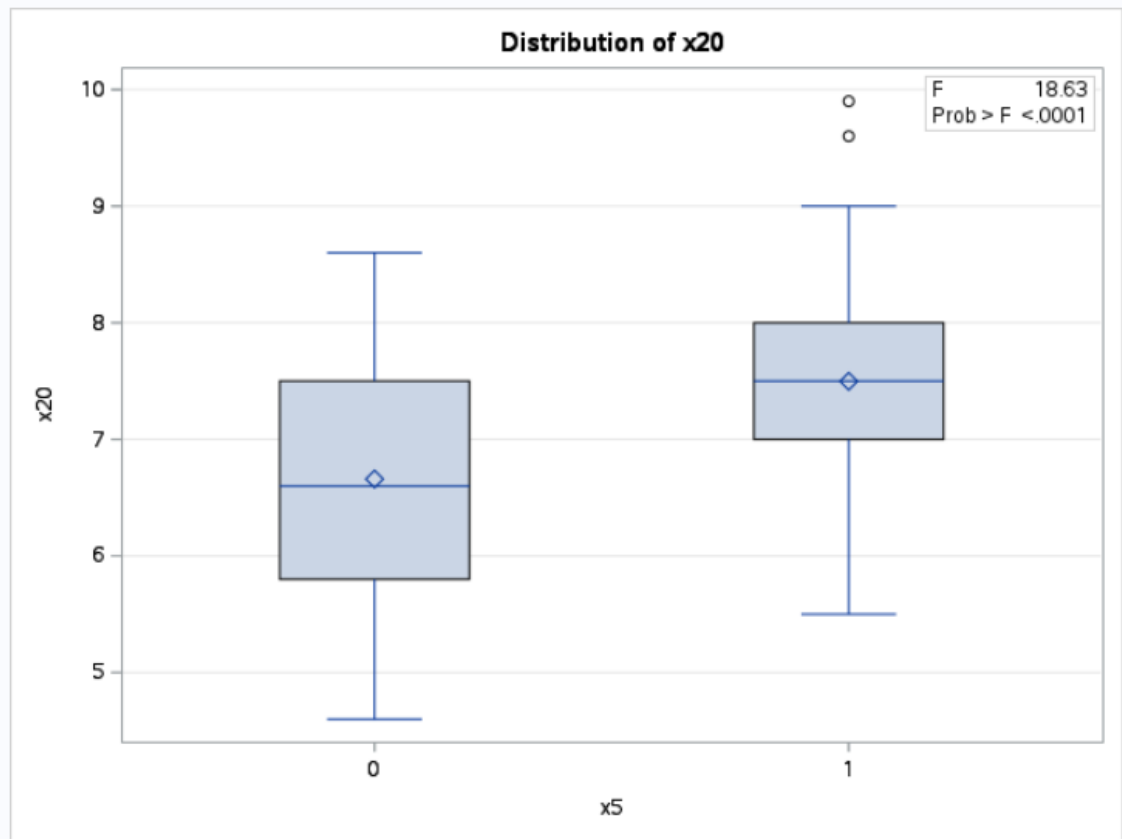
Bartlett's Test for Homogeneity of x19 Variance			
Source	DF	Chi-Square	Pr > ChiSq
x5	1	0.3357	0.5623

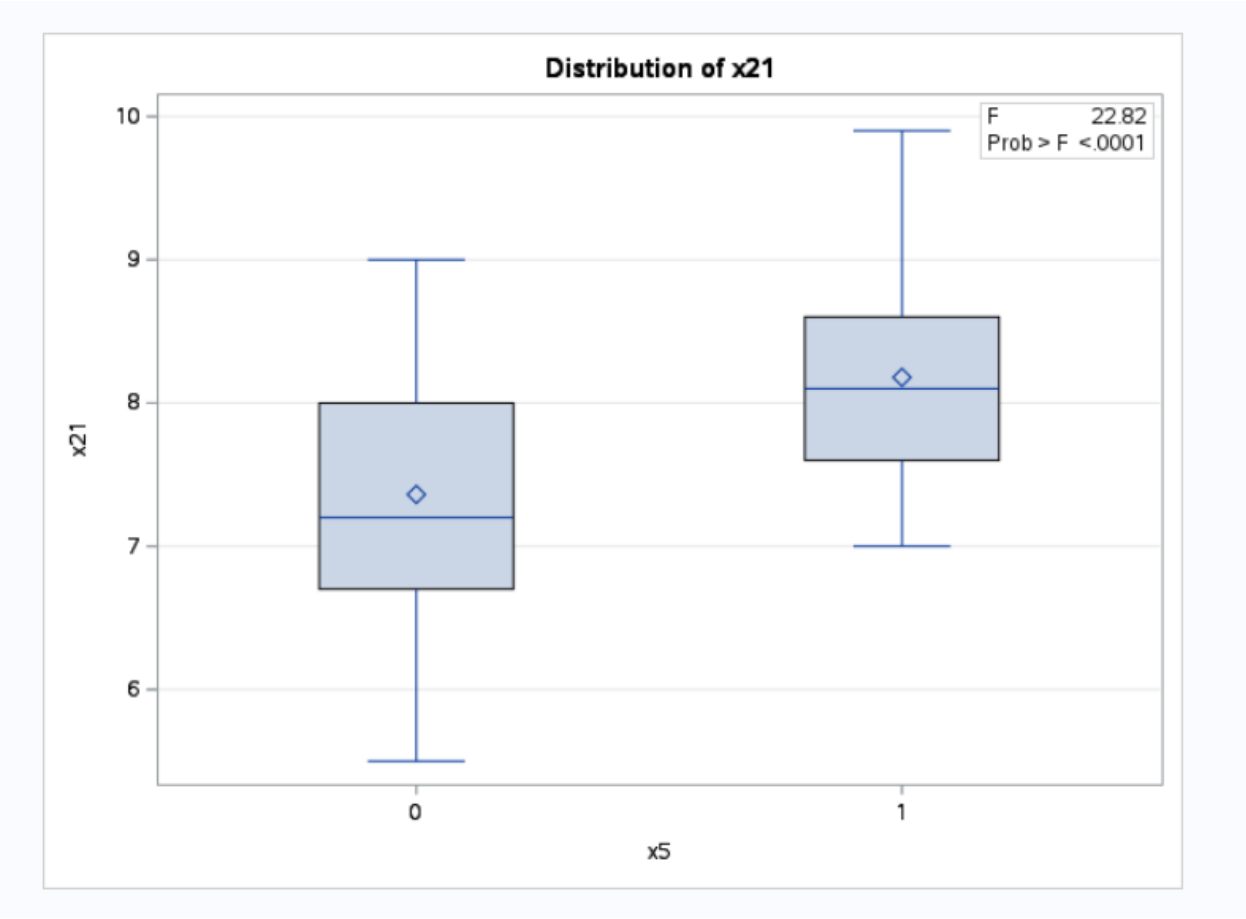
Bartlett's Test for Homogeneity of x20 Variance			
Source	DF	Chi-Square	Pr > ChiSq
x5	1	0.0117	0.9137

Bartlett's Test for Homogeneity of x21 Variance			
Source	DF	Chi-Square	Pr > ChiSq
x5	1	1.8584	0.1728

Figure 6:







**Table 7:**

Dependent Variable: x19 x19

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	38.0186322	38.0186322	36.31	<.0001
Error	98	102.6089678	1.0470303		
Corrected Total	99	140.6276000			

R-Square	Coeff Var	Root MSE	x19 Mean
0.270350	14.79105	1.023245	6.918000

Dependent Variable: x20 x20

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	17.2130396	17.2130396	18.63	<.0001
Error	98	90.5469604	0.9239486		
Corrected Total	99	107.7600000			

R-Square	Coeff Var	Root MSE	x20 Mean
0.159735	13.69263	0.961222	7.020000

Dependent Variable: x21 x21

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	1	16.38684949	16.38684949	22.82	<.0001
Error	98	70.36625051	0.71802296		
Corrected Total	99	86.75310000			

R-Square	Coeff Var	Root MSE	x21 Mean
0.188891	10.98616	0.847362	7.713000