

Order Crossover vs PMX with Penalty Function  
F-Test Two-Sample for Variances

Order Cros PMX

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	-74.8083	-81.2292
Variance	3245.469	4067.859
Observations	240	240
df	239	239
F	0.797832	
P(F<=f) one-tail	0.04074	
F Critical one-tail	0.80798	

$M(1) > M(2)$  and  $F < F \text{ Critical} \Rightarrow \text{Equal}$

t-Test: Two-Sample Assuming Equal Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	-74.8083	-81.2292
Variance	3245.469	4067.859
Observations	240	240
Pooled Variance	3656.664	
Hypothesized Mean Difference	0	
df	478	
t Stat	1.16316	
P(T<=t) one-tail	0.122672	
t Critical one-tail	1.648048	
P(T<=t) two-tail	0.245345	
t Critical two-tail	1.964939	

$t \text{ Stat} < t \text{ Critical} \Rightarrow \text{No significant difference}$