

Mutation with Self-Adaptive Penalty Function - Input 1
F-Test Two-Sample for Variances

Flip Move

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	-138.038	-17.4083
Variance	73.50068	1.707043
Observations	240	240
df	239	239
F	43.0573	
P(F<=f) one-tail	5.3E-128	
F Critical one-tail	1.237654	

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

t-Test: Two-Sample Assuming Equal Variances

	<i>Variable 1</i>	<i>Variable 2</i>
Mean	-138.038	-17.4083
Variance	73.50068	1.707043
Observations	240	240
Pooled Variance	37.60386	
Hypothesized Mean Difference	0	
df	478	
t Stat	-215.49	
P(T<=t) one-tail	0	
t Critical one-tail	1.648048	
P(T<=t) two-tail	0	
t Critical two-tail	1.964939	

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