Sex	Income
M	40.6
M	54.6
M	38.6
M	58.2
M	34.6
M	42.9
M	67.5
M	79.8
M	54.4
M	47.3
M	66.4
M	69.0
M	62.0
M	52.5
M	72.6
M	52.4
M	59.5
M	59.1
M	36.7
M	54.6
M	52.1
M	49.9
M	52.0
M	47.1
M	40.8
M	36.5
M	57.1
M	54.1
M	32.4
M	34.9
M	64.1
M	54.0
M	51.5
M	50.8
M	45.1
M	81.5
M	70.4
M	39.2
M	45.2
M	80.9
M	48.6
M	31.0
M	32.1
M	33.9
M	31.3
M	51.0
M	53.4
M	58.3
M	31.4
M	56.3
M	41.0
M	47.9
M	51.4
M	33.1
M	74.9
M	77.2
M	57.9
M	80.1
M	40.2
M	100.9
F	33.1
F	35.8
F	68.8
F	31.6
F	38.2
F	42.0
F	33.4
F	50.3
F	39.6
F	30.7
F	31.3
F	61.3
F	30.0
F	38.1
F	56.4
F	35.7
F	31.3
F	40.4
F	32.1
F	66.4
F	36.9
F	35.9
F	49.6
F	62.8
F	44.6
F	32.5
F	33.4
F	55.3
F	62.7
F	54.4
F	30.8
F	49.1
F	41.9
F	32.5
F	35.2
F	47.4
F	60.7
F	33.0
F	43.3
F	34.8
F	36.0
F	51.6
F	31.9
F	34.1
F	78.4
F	30.4
F	45.3
F	52.6
F	30.3
F	36.6
F	53.1
F	36.5
F	37.8
F	34.0
F	69.3
F	77.2
F	32.6
F	82.9
F	42.3
F	57.8

Exercise 7.2
F-Test Two-Sample for Variances

	Variable 1	*Variable 2*
Mean	52.91333333	44.23333333
Variance	233.1289718	190.1758192
Observations	60	60
df	59	59
F	1.225860221	
P(F<=f) one-tail	0.21824624	
F Critical one-tail	1.539956607	

p2 0.43649248 **Interpretation** F test not significant, therefore data consistent with the asumption that the population variances are similar in males and females

t-Test: Two-Sample Assuming Equal Variances

Assumptions: Data normally distributed (could do histograms, or Shapiro-Wilk/Kolmogorov-Smirnoff test)
Equal variances (tested above with F test)

	Variable 1	*Variable 2*
Mean	52.91333333	44.23333333
Variance	233.1289718	190.1758192
Observations	60	60
Pooled Variance	211.6523955	
Hypothesized Mean Difference	0	
df	118	
t Stat	3.267900001	
P(T<=t) one-tail	0.000709735	
t Critical one-tail	1.657869522	
P(T<=t) two-tail	0.00141947	
t Critical two-tail	1.980272249	

Difference in means 8.68 **Interpretation** Strong evidence that the underlying mean income for males is larger than for females, with an average of 8.68