```
1          OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
68
69         *  AST  503
70         Program 5
71         Zainab Akinjobi
72
73
74         * Checking assumptions for the mean test
75         In this experiment we are testing if there is a detectable difference in mean wt_gain for
76         diet 'a' vs  diet 'b'. The response variable is weight gain.
77         We want to test Ho mu1 = m2
78                         Ha mu1 <> mu2
79         Step 1. is to test for equal variance
80         If you reject equal variance , use Satterthwaite value for the mean test
81         If you fail to reject equal variance, use the pooled.
82         Step 2. Is to test equal means Ho mu1 = m2
83                                        Ha mu1 <> mu2
84         In this test, we are going to have 4 hypotheses (Ho and Ha for the variances and mean).
85
86            ;
87
88         data mydata;
89
90         input diet $ 1  wt_gain 4-6 ;
91
92         datalines;

NOTE: The data set WORK.MYDATA has 15 observations and 2 variables.
NOTE: DATA statement used (Total process time):
      real time           0.00 seconds
      user cpu time       0.00 seconds
      system cpu time     0.00 seconds
      memory              667.56k
      OS Memory           26788.00k
      Timestamp           12/13/2021 03:27:46 AM
      Step Count                        100  Switch Count  2
      Page Faults                       0
      Page Reclaims                     128
      Page Swaps                        0
      Voluntary Context Switches        10
      Involuntary Context Switches      1
      Block Input Operations            0
      Block Output Operations           264


108        ;
109
110
111        proc ttest data =mydata;
112        class diet;
113        var wt_gain;
114        title1 'Test equal weight gains for diet a and b';
115
116
117
118
119
120        OPTIONS NONOTES NOSTIMER NOSOURCE NOSYNTAXCHECK;
130
```