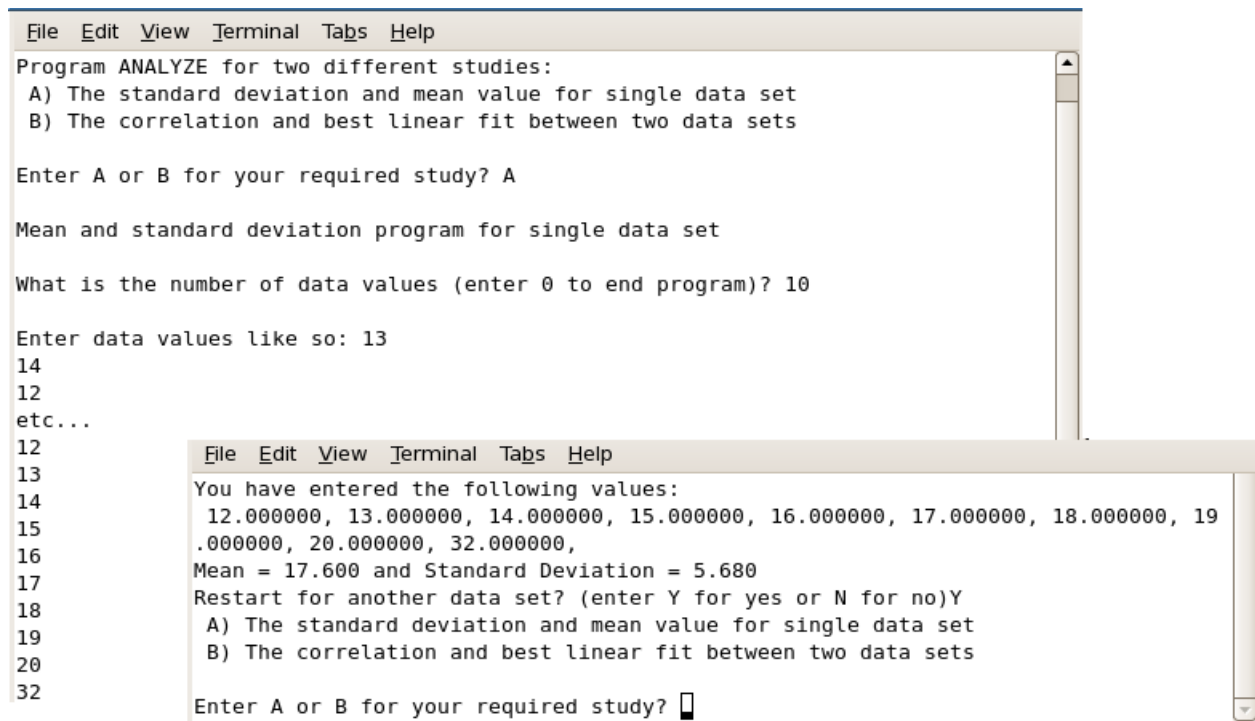# Analyze Readme

The ANALYZ computer program provides two choices for the user: 1) determine the mean and standard deviation for a data set of single values or 2) find the linear regression Correlation Coefficient for a set of paired (x and y coordinate) data values. The program displays the values of a best fitting linear representation of the data pairs along with the Standard Error of Estimate. You are given the opportunity to use the linear regression line to determine the corresponding value of y for any given x. An example screen is shown below.


```
File  Edit  View  Terminal  Tabs  Help
Program ANALYZE for two different studies:
 A) The standard deviation and mean value for single data set
 B) The correlation and best linear fit between two data sets

Enter A or B for your required study? A

Mean and standard deviation program for single data set

What is the number of data values (enter 0 to end program)? 10

Enter data values like so: 13
14
12
etc...
12
13
14
15
16
17
18
19
20
32
```

```
File  Edit  View  Terminal  Tabs  Help
You have entered the following values:
 12.000000, 13.000000, 14.000000, 15.000000, 16.000000, 17.000000, 18.000000, 19
.000000, 20.000000, 32.000000,
Mean = 17.600 and Standard Deviation = 5.680
Restart for another data set? (enter Y for yes or N for no)Y
 A) The standard deviation and mean value for single data set
 B) The correlation and best linear fit between two data sets

Enter A or B for your required study? 
```

The ANALYZ program is run in the computer DOS mode; simply enter the program name and touch ENTER on your keyboard. You are asked to select between the two types of study (single data set or paired values set). Follow the directions for entering the number of values (or paired values) and your data. You are given the opportunity to correct an input error. Both the input and results are displayed on the screen. For the best fitting line representing the paired values, you can select any x value of your choosing and have the value of corresponding y shown.