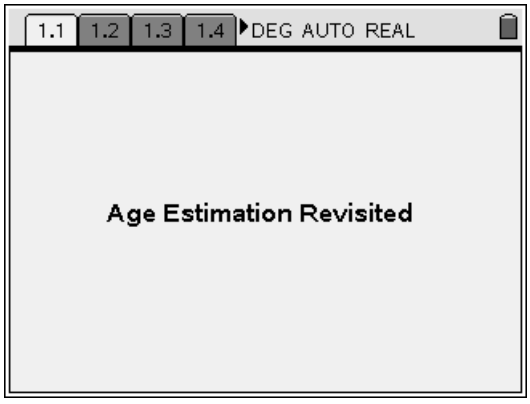
Step By Step Instructions

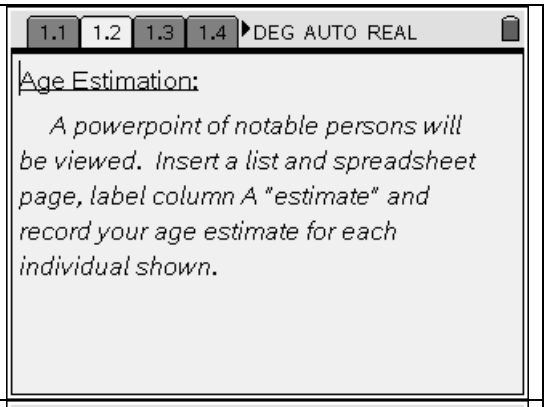
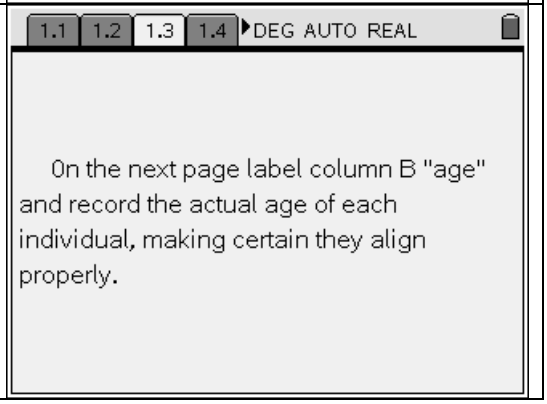
This investigation is accompanied by a power point of notable persons. Students will be using a scatter plot, linear equation, spreadsheet computations and box plot as they complete this activity.

- Download the ageppt document and link to student calculators. Note: The teacher version is agepptSOL, it includes completed calculations, functions and graphs.
- Distribute a student worksheet if you desire a hard copy of the activity.
- The TI-Nspire document allows the students to work through the investigation.
- Students should know how to construct a scatter plot and box plot using TI-Nspire technology.

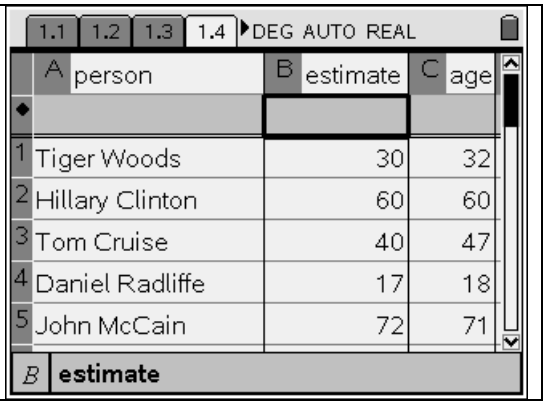
This activity is titled **Age Problem Revisted** because it is an activity that was completed earlier on the TI-83/TI-84 family; now it is revised and used on the TI-Nspire because we can present it as a very friendly workable document and we can use new features that are available.



Page 2 and Page 3

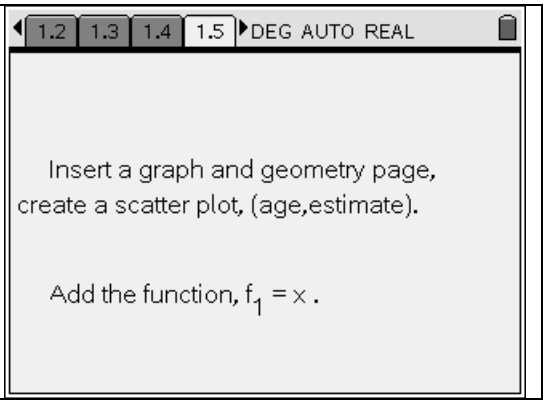
Students will follow the instructions given on page 1.2	
Students will follow the instructions on page 1.3	

Page 4

The following screen will show the results of completing pages 2 and page 3.	

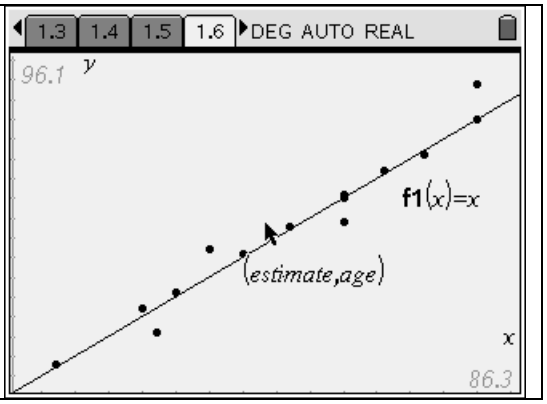
Page 5

Students are asked to insert a graph and geometry page,create a scatter plot, (menu) , (3), (4) . They will then insert the function f1(x)= x, (menu), (3), (1).



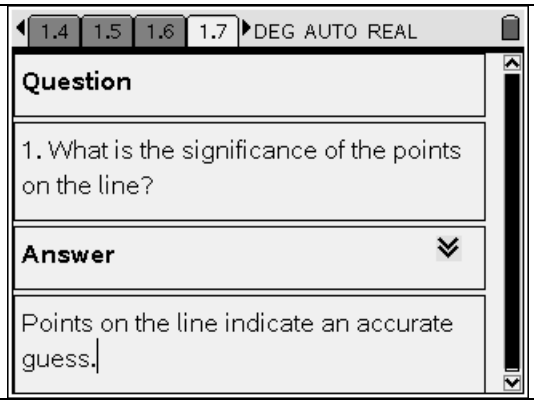
Page 6

The resulting scatter plot is shown to the right.

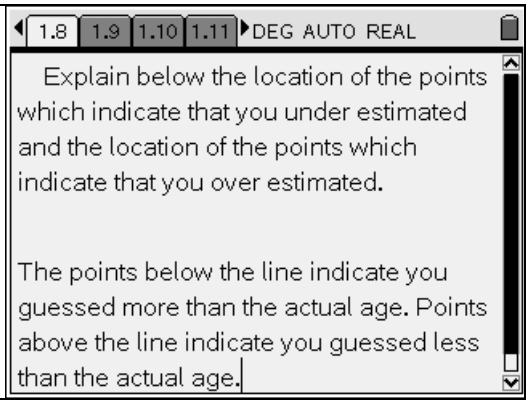


Page 7

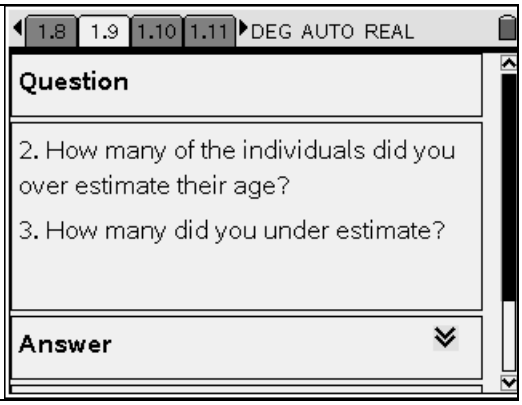
Students are asked a question, they will use the ▼ ▼ to go down to answer the question.



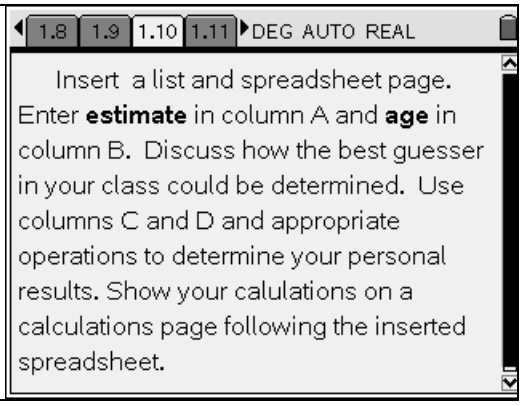
Page 8

Students are asked to explain what the points above and below the line represents. They will answer this question on the same page.	

Page 9

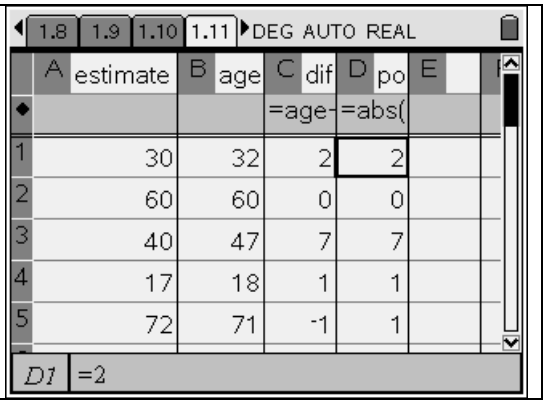
Students are asked questions which require them to interpret the meaning of the points in relationship to the line f1(x) = x	

Page 10

Page 10 is an instruction page. one of great features of the TI-Nspire is the ease of recreating a list and spreadsheet within the same document. In this case it retrieves **age** and **estimate** lists and we are ready to continue.	

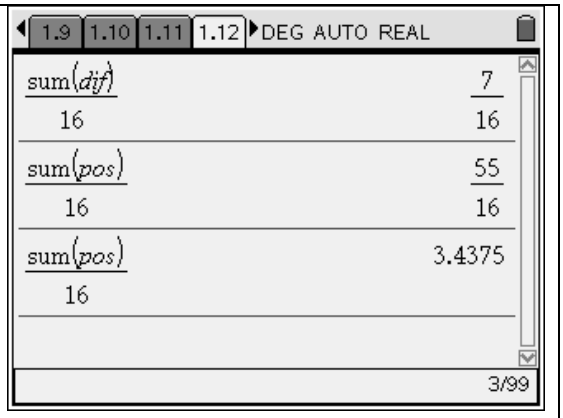
Page 11

This page shows the spreadsheet and the added columns. Column C was created by entering **= age – estimate** in the formula space and titling the column **dif**. Column D is titled **pos**, the formula entered **= abs(dif)**, as we needed to reflect only positive differences the **estimate** was from the **age**.



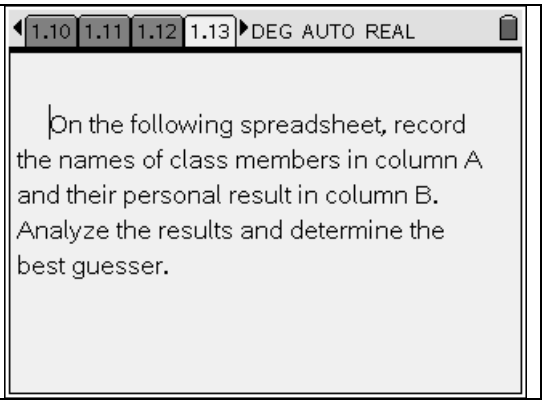
Page 12

This page shows the difference in averages that would occur if the sum(**dif)** was averaged rather than sum(**pos).** Students should realize that differences from the actual the age "cancel" each other out if positive And negatives are in the list when The sum is taken. Recall decimal Form is obtained by ctrl , enter .



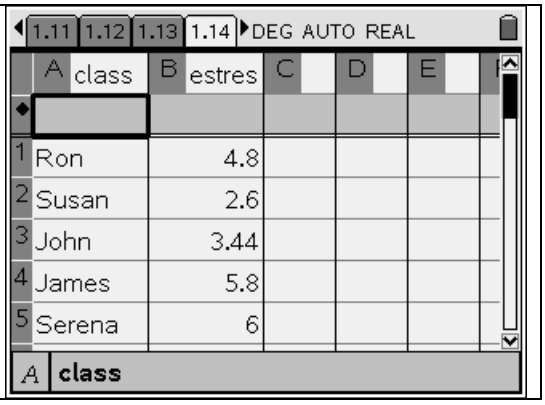
Page 13

Students are asked to record the names of their classmates and their personal estimate result in the spreadsheet on page 14. Analyze the results and determine who was the best estimator of actual ages.



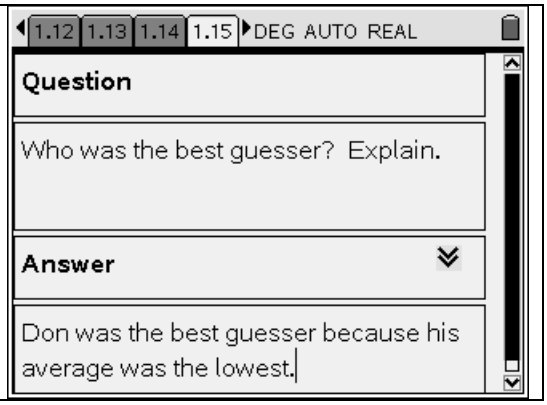
Page 14

A portion of the sample spreadsheet is shown on page 14. Students' page will look different of course. They will scroll up and down the list or min(**estres**) on a calculator page to find the best estimator.



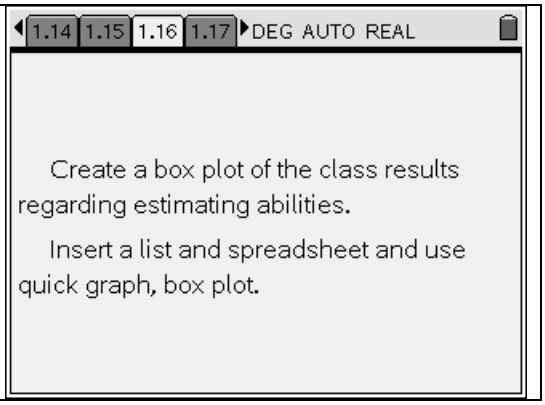
Page 15

Page 15 is the question-answer form for the previous page. Always encourage students to answer in complete sentences.



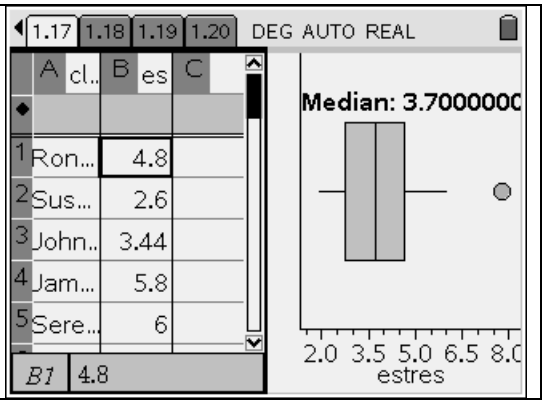
Page 16

Students will now be asked to create a box plot of the class results. They will ctrl , I to insert a list and spreadsheet. They will type in the title of the lists in columns A and B. The columns automatically fill.



Page 17

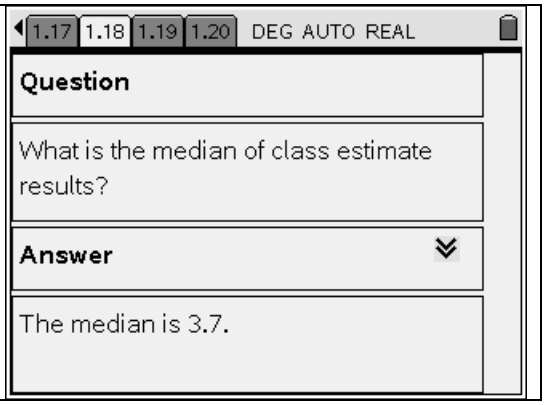
The resulting spreadsheet and box plot are shown on page 17. The median is shown. Moving the arrow keys over the box plot will result in the median being shown on the screen.



NOTE: Students may need to review how to obtain the graph, (menu) , (3) (data), (4) (quick graph), (menu) , 1. Plot Type, Box Plot, to complete page 17.

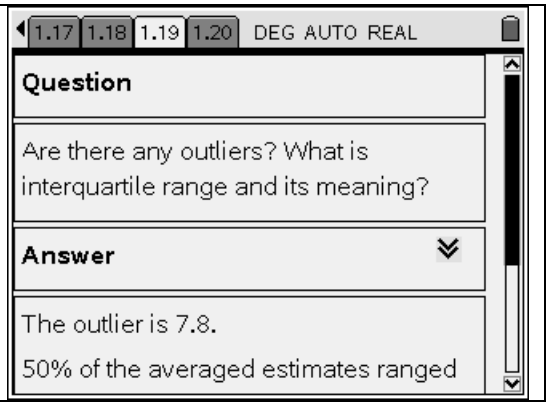
Page 18

This is the question-answer page which students will use to answer after determining the median by using the previous page.



Page 19

Page 19 offers the opportunity to answer more questions pertaining to the box plot. Note: There is a down arrow to see the rest of the answer.



Page 20

This page is a question-answer page. Students will find this answer by going back to the spreadsheet/ box plot page.