TI-Nspire Activity: Barry Bonds

Activity Overview

In this activity, students will model the relationship between various statistics related to the baseball career of Barry Bonds.

Concepts

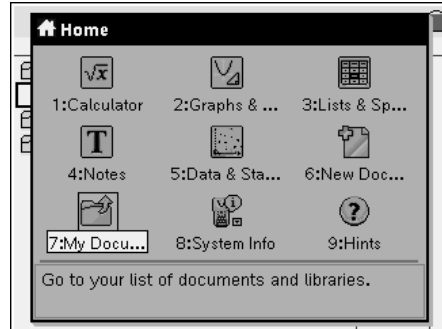Numerical Data
Scatter plots
Functions & Regression Models

Teacher Preparation

Transfer the *BarryBonds.tns* file onto all the student handhelds. The document contains directions for students to work individually but depending on their current familiarity with regression equations and functions, groups of 2-3 students would be best.

The Classroom

Guide the students in opening *BarryBonds.tns* document.
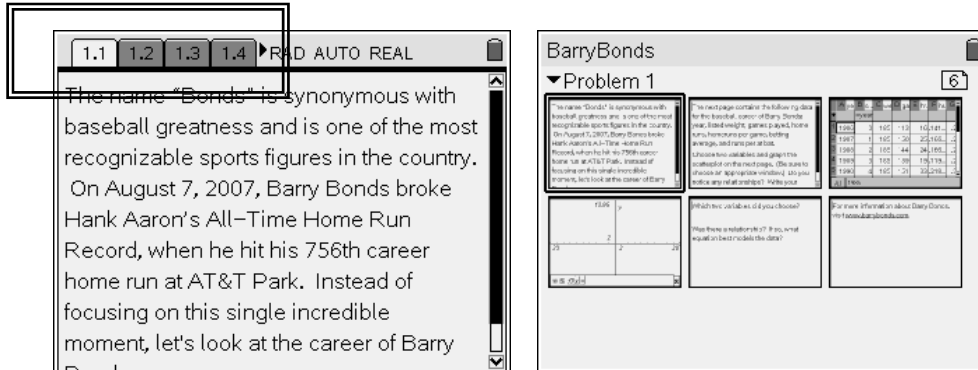- Turn the device on, ⟨on⟩.
- Press the Home Key ⟨⌂⟩.
- Select 7:My Documents.
- Open the folder containing the TNS file by scrolling to the folder using the NavPad and pressing ⟨enter⟩.
- Scroll to *BarryBonds.tns* document and press ⟨enter⟩ to open it.
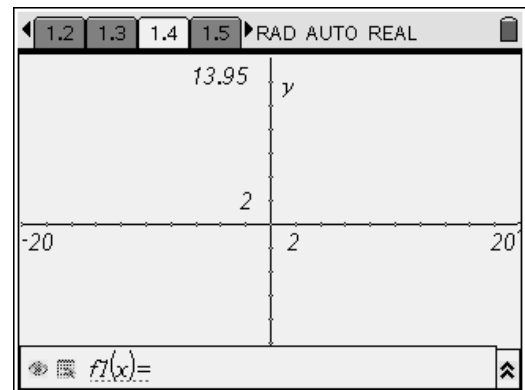 - ∘ **If asked if you want to save the other document, press the Tab key ⟨tab⟩ to highlight the No button and press Enter ⟨enter⟩.

Remind the students how to move between pages.
- To move between pages, press ⒸⓉⓇ and ◄ or ► on the NavPad.
- To scroll ahead or back several pages in a document, press ⒸⓉⓇ and ▲ to view the Page Sorter view of the document. Use the NavPad to move to the desired page and press the center click key ⊙ to open the page.

Page 1.1 & 1.2 explains the data this will be used in this activity. The data was collected from the Official Barry Bonds website at www.barrybonds.com . The students are instructed to choose two variables to investigate. It may be a good idea to ensure that the students select a variety of pairs of variables. Then they will be able to share the results at the end of the class.

Page 1.4 contains a blank Graphs & Geometry page. Students will need to set an appropriate window for their data choice. You may need to remind students how to change the Graph Type (ⓂⒺⓃⓊ, 3:Graph Type).

Page 1.5 allows students to enter their variable choices and conclusions they have drawn.

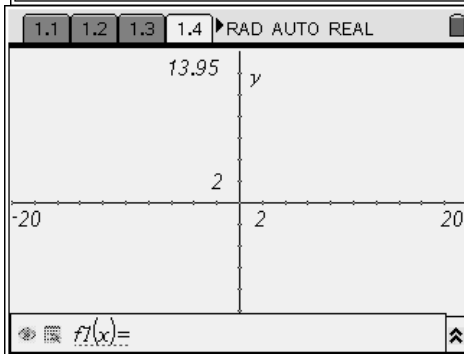Page 1.4 & 1.5 should be shared with the class at the end and discussed.

The Document

The name "Bonds" is synonymous with baseball greatness and is one of the most recognizable sports figures in the country. On August 7, 2007, Barry Bonds broke Hank Aaron's All-Time Home Run Record, when he hit his 756th career home run at AT&T Park. Instead of focusing on this single incredible moment, let's look at the career of Barry

The next page contains the following data for the baseball career of Barry Bonds: year, listed weight, games played, home runs, homeruns per game, batting average, and runs per at bat.

Choose two variables and graph the scatterplot on the next page. (Be sure to choose an appropriate window.) Do you notice any relationships? Write your

	A ye	B si..	C we	D ga	E hr.	F hr.	G
◆		=year					
1	1986	0	185	113	16	.141...	.2
2	1987	1	185	150	25	.166...	.2
3	1988	2	185	144	24	.166...	.2
4	1989	3	185	159	19	.119...	.2
5	1990	4	185	151	33	.218...	.3

A1 | 1986

13.95
y
2
-20   2   20

⊛ ▦ f1(x)=

Which two variables did you choose?

Was there a relationship? If so, what equation best models the data?