



by - Winnie Miller (original version created by another Fast Tracker)

Activity overview

This is an introduction to the TI-Nspire Data and Statistics feature. Real data from Subway is used to find the mean, create a histogram and box and whisker plots, and find a regression equation.

Concepts

Central tendencies spread of data, histogram, box and whisker plots, and regression equation.

Teacher preparation

Define mean, histograms, box and whisker plots, regression equations and their relationships. Show a variety of examples and the situations they are describing.

Classroom management tips

Work with a partner or small group for collaboration and discussion.

TI-Nspire Applications

Data and Statistics and My Documents features; nutritioninfo.tns

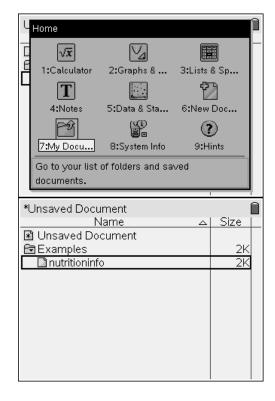
Step-by-step directions

Open a saved document

Press the (a) key.

Choose 7: My Documents Press (a).

Choose the file named *nutritioninfo.tns* Press (3).





by: Winnie Miller Grade level: secondary Subject: Statistics Time required: 45 to 90 minutes

Materials: TI-Nspire

Do you want to save this document?

Choose: No

<u>Note:</u> This message may not appear if there was no open file on the handheld

Insert a Data & Statistics page.

Press (ctrl) (I).

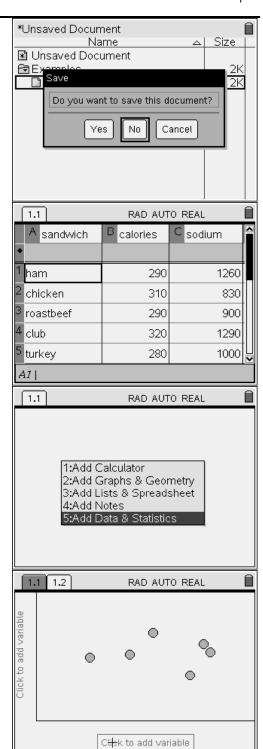
Note: This data can be found at www.subway.com

Choose 5: Add Data & Statistics

Press (nter).

Use the NavPad to cursor to the horizontal "Click to add variable".

Press 💫.





by: Winnie Miller Grade level: secondary Subject: Statistics Time required: 45 to 90 minutes

Materials: TI-Nspire Select calories. 1.1 1.2 RAD AUTO REAL Press (%). 🗝 calories ∰ sand Sandwich --}sodium Click to add variable Notice how the values have been plotted. 1.1 1.2 RAD AUTO REAL 230 250 calories Insert the mean of calorie data. 🗾 1: Plot Type RAD AUTO REAL 🗐 2: Plot Pro 🔑 3: Actions 2: Plot Propertie 1: Select All Points Press (menu). ሓ 4: Window/Zo -2: Add Movable Line 2: Add Movable Line

3: Remove Selected

4: Lock Intercept at Zero

5: Regression

6: Show Residual Squares

7: Show Normal PDF Choose 3: Actions Choose 8: Plot Value 8: Plot Value 9: Plot Function 🖺 A: Start over Press (enter). 270 calories 230 250 310 290 1.1 1.2 RAD AUTO REAL $\nu \beta$:= mean(calories)



by: Winnie Miller Grade level: secondary Subject: Statistics Time required: 45 to 90 minutes

Materials: TI-Nspire

Press (enter).

Remove the plotted value.

Press (menu).

Choose 3: Actions

Choose 3: Remove Plotted Value

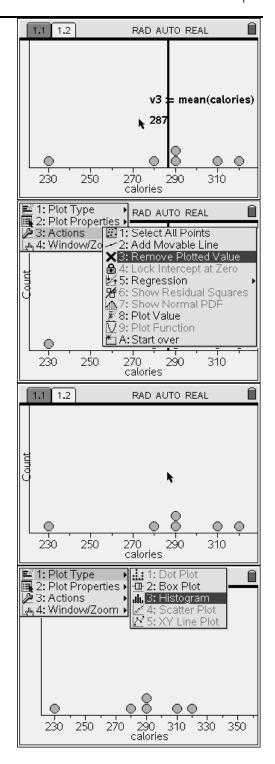
Press (enter).

Create a histogram of the calorie data.

Press (menu).

Choose 1: Plot Type Choose 3: Histogram

Press enter.





by: Winnie Miller Grade level: secondary Subject: Statistics Time required: 45 to 90 minutes

Materials: TI-Nspire

When would a histogram be a useful display of data?

Create a box plot of the calorie data.

Press (menu).

Choose 1: Plot Type Choose 2: Box Plot

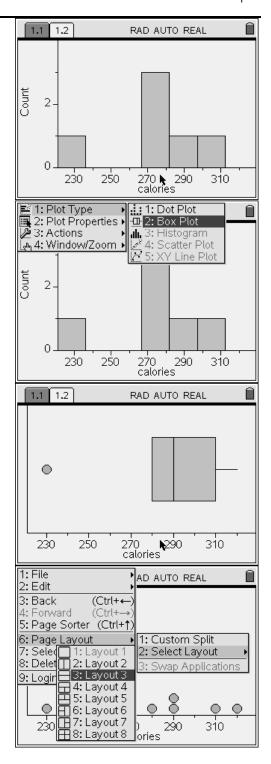
Press (enter).

Display both calorie and sodium data together.

Press (ctr) (3).

Choose 6: Page Layout Choose 2: Select Layout Choose 3: Layout 3

Press (enter).





by: Winnie Miller Grade level: secondary Subject: Statistics Time required: 45 to 90 minutes

Materials: TI-Nspire

	Materiais: 11-Nspir
Use the NavPad to move the cursor to bottom window.	1.1 1.2 RAD AUTO REAL
Press 🕦.	230 250 270 290 310 calories
Press (menu).	Press M g nu
Choose 5: Add Data & Statistics	1.1 1.2 RAD AUTO REAL
	1:Add Calculator 2:Add Graphs & Geometry 3:Add Lists & Spreadsheet 4:Add Notes 5:Add Data & Statistics Press Menu
Press ().	1.1 1.2 RAD AUTO REAL
Use the NavPad to cursor to the horizontal "Click to add variable".	230 250 270 290 310 calories
Press 💫.	Click to add
	Click to add variable
Choose sodium Press (all).	1.1 1.2 RAD AUTO REAL
	230 250 270 290 310 calories

500

700

900 sodium 1300

1100



by: Winnie Miller Grade level: secondary Subject: Statistics Time required: 45 to 90 minutes

Materials: TI-Nspire

Display both sets of data as box plots.

Press (menu).

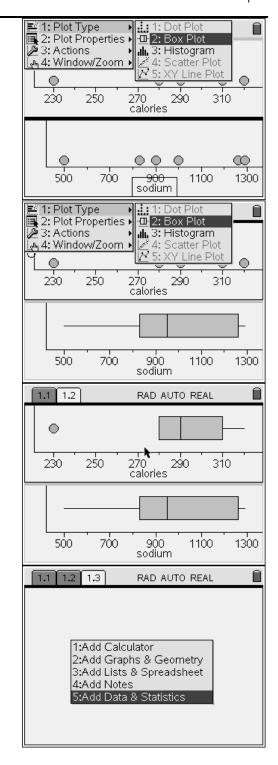
Choose 1: Plot Type Choose 2: Box Plot

Press menu.

Choose 1: Plot Type Choose 2: Box Plot

Press (enter).

Insert a new page.
Press (etr) (1).
Choose 5: Add Data & Statistics
Press (all page).





by: Winnie Miller Grade level: secondary Subject: Statistics Time required: 45 to 90 minutes

Materials: TI-Nspire

Using the NavPad, move the cursor to the vertical "click to add variable"

Press (%).

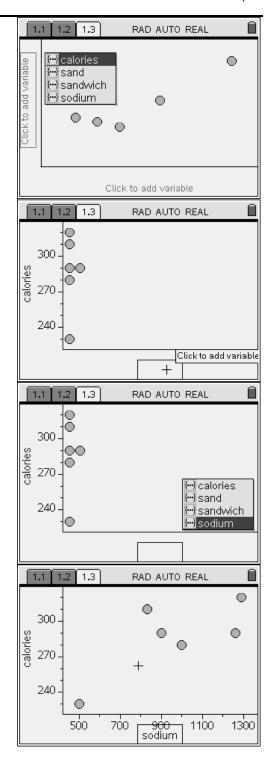
Choose calories

Press (enter).

Using the NavPad, move the cursor to the horizontal "click to add variable".

Press (%). Choose **sodium**

What do you notice?





by: Winnie Miller Grade level: secondary Subject: Statistics Time required: 45 to 90 minutes

Materials: TI-Nspire

Show Regression Line

Press (menu).

Choose 3: Actions Choose 5: Regression

Choose 1: Show Linear (mx + b)

Press (enter)

