

## Granola Graphs Galore Investigation

Open the granola bar data set at <http://tinyurl.com/granolabardata>. This data set includes information from the United States Department of Agriculture's Branded Food Products Database about a sample of 33 granola bars sold in the United States in 2017.

Begin by examining the data in the table. Look at the column headers of the table. These are the variables this data set has for the 33 granola bars.

1. What can we conclude about the texture of granola bars and whether their ingredients include nuts? Create a two-way binned plot using the attributes 'Nuts' and 'Texture'. Use this plot and CODAP's capabilities to complete the following statements.
  - a. \_\_\_\_\_ % of the chewy granola bars have nuts.
  - b. \_\_\_\_\_ % of the granola bars are crunchy and do not have nuts.
  - c. \_\_\_\_\_ % of the granola bars are crunchy.

For questions 2-4, choose which graphs and/or numerical calculations to make in CODAP to answer the following questions.

2. Do granola bars with fruit tend to be crunchy? Explain your reasoning.
3. Are organic granola bars less likely to have corn syrup in them than non-organic granola bars? Explain your reasoning.
4. If you like chocolate in your granola bar, what else is likely to be true about your granola bar? Explain your reasoning.

5. Predict two categorical variables that you believe have an association. Use CODAP to investigate whether the variables appear to be associated or not. Provide graphs and numerical analysis to support your conclusions.

### Comparing the Attributes Nuts and Texture

	NO NUTS	NUTS
CHEWY	13	10
CRUNCHY	6	4

