

## LAB 1E: What's the Relationship?

Directions: Record your responses to the lab questions in the spaces provided.

### Finding patterns in data.

#### Where are the variables?

- How many variables were used to create this plot? Which variables were used and how were they used?

### Multiple variable plots

#### scatterplots

#### Creating scatterplots

#### Scatterplots in action

- Do snacks that have more protein also have more calories? Why do you think that?
- What happens if you swap the protein and calories variables in your code? Does the relationship between the variables change?
- Does the relationship between protein and calories change when the snack is either Salty or Sweet? Write down the code you used to answer this question.

#### 4-variable scatterplots

- Create a scatterplot that uses these 4 variables: sodium, sugar, cost, salty\_sweet.

### Multiple facets

- How does the healthy\_level of a Salty or Sweet snack impact the number of calories in the snack?

### On your own

- Do healthier snacks have more or less ingredients than less healthy snacks?
- What other variables seem to be related to the number of ingredients of a snack? Describe their relationships.