

Identify the W's and the variables (what are they, what type is each used as, and what are the units).

1. A Consumer Reports article on energy bars gave the brand name, flavor, price, number of calories, and grams of protein and fat.

Solution: *Consumer Reports*

Who: energy bars

What: brand name, flavor, price, calories, protein, fat

When: not specified Where: not specified

How: not specified. Are data collected from the label? Are independent tests performed?

Why: information for potential consumers

Categorical variables: brand name, flavor

Quantitative variables: price (US\$), number of calories (calories), protein (grams), fat(grams)

2. A report on the Boston Marathon listed each runner's gender, country, age, and time.

Solution: Boston Marathon

Who: Boston Marathon runners

What: gender, country, age, time

When: not specified

Where: Boston

How: not specified. Presumably, the data were collected from registration information.

Why: race result reporting

Categorical variables: gender, country

Quantitative variables: age (years), time (hours, minutes, seconds)