

# Introduction to Statistics

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## 1.3 Discrete vs. Continuous

1. Is the following data collected discrete or continuous? An agriculture researcher records the volume of milk produced from a random selection of dairy cows on a particular farm in North Dakota.
2. Is the following data collected discrete or continuous? A food researcher analyzes a random selection of six chef's recipes from the Food Network. For each chef, the researcher counts and reports how many of their recipes exceed 1000 calories per serving.
3. Is the following data collected discrete or continuous? Researchers in the OT department weigh backpacks of young school children to estimate the average weight elementary school children are carrying around in their backpacks.
4. Is the following data collected discrete or continuous? A dermatologist counts the number of freckles on the face of 60 randomly selected elderly patients.

### Answers:

1. Continuous, because any fraction of a gallon is possible (notice a gallon is a **measurement**).
2. Discrete, because a chef could not have 3.28 recipes that exceed a 1000 calories (notice the number of recipes that ... is a **count**).
3. Continuous, because any fraction of a pound is possible (notice weight is a **measurement**).
4. Discrete, because a person can't have 43.56 freckles (notice they **count** the number of freckles).