# Statistics for Agriculturists
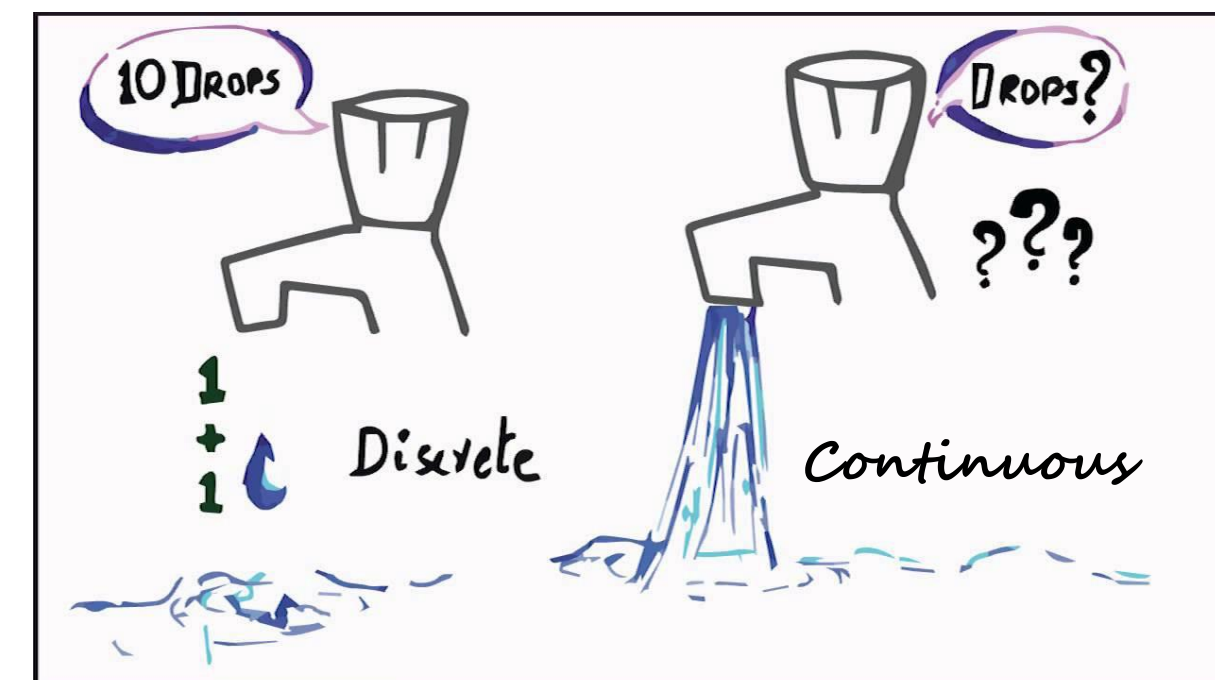
## Basics terminology in Statistics

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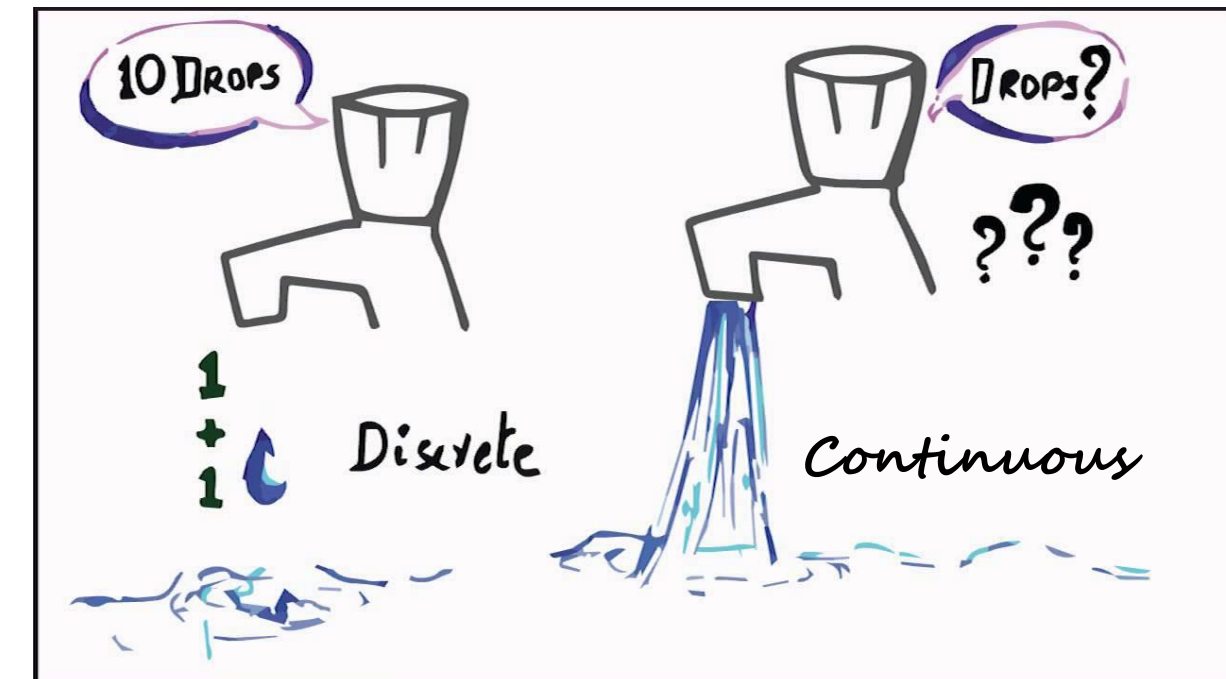# Variables

- **Discrete variable**: a variable that can only take on a certain number of values. For example, "number of roses in a bush" is discrete because a bush can only hold a specific number of roses.

- **Continuous variable**: a variable with infinite number of values, like "time" or "weight".

- **Control variable**: a factor in an experiment which must be held constant. For example, in an experiment to determine whether light makes plants grow faster, you would have to control for soil quality and water.
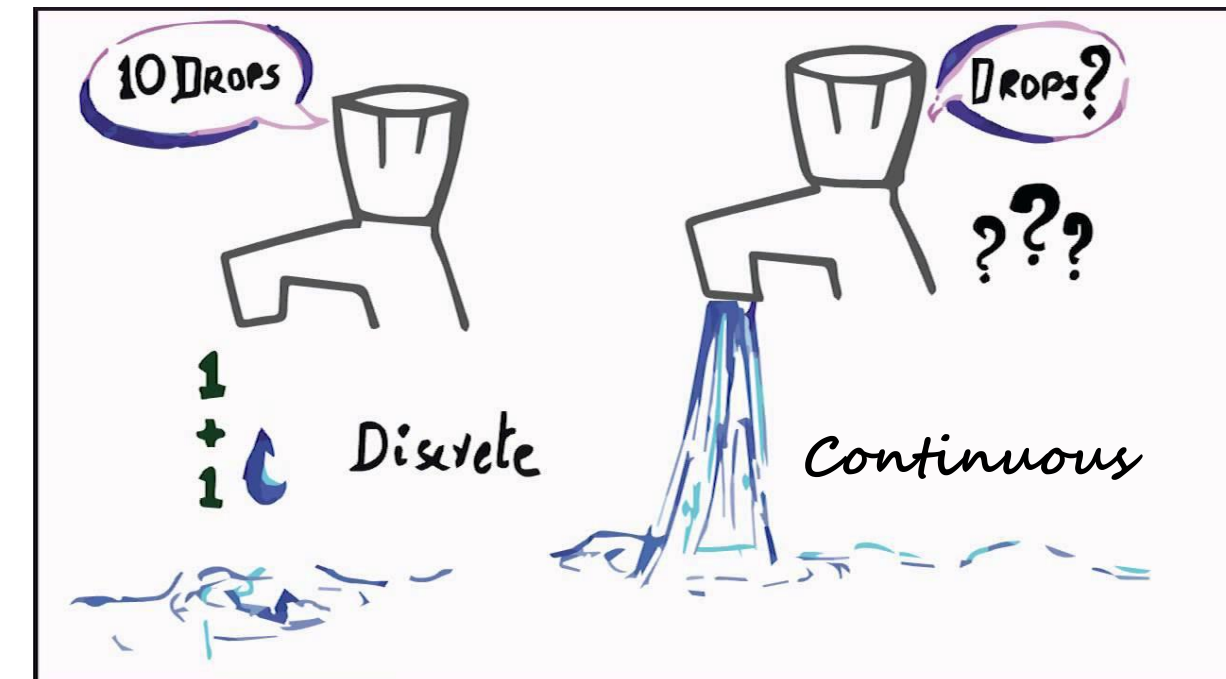
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- **Binary variable**: a variable that can only take on two values, usually 0/1. Could also be yes/no, tall/short or some other two-variable combination.

- **Categorical variable**: variables than can be put into categories. For example, the category "Fertilizer Brands" might contain the variables IFFCO and HFCL.

- A **measurement variable** has a number associated with it. It's an "amount" of something, or a "number" of something.

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- **Independent variable**: a variable that is not affected by anything that you, the researcher, does. Usually plotted on the x-axis.

- **Dependent variable**: the outcome of an experiment. As you change the independent variable, you watch what happens to the dependent variable.

Thank you