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### Lab

## The t-distribution



SPEAKER: MICHAEL J. MAHOMETA, Ph.D.

In this video I'd like to introduce you to a very important statistician:

William Gosset.

Why is he important?

Because he was an employee of Guinness Beer in the early 20th century



0:00 / 10:17



1.0x



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.srt

## Comprehension Check

1. Here is the formula for calculating the t-statistic for a single sample:

$$t = \frac{\text{sample mean} - \text{hypothesized mean}}{\text{standard error}}$$

Lab due May 03, 2016  
at 17:00 UTC

**Problem Set**

Problem Set due May  
03, 2016 at 17:00 UTC

(1/1 point)

1a. Which part of the formula tells you how far your sample mean is from the center of the sampling distribution?

Numerator ▼



Answer: Numerator

(1/1 point)

1b. Which part of the formula tells you how far a sample mean is expected to be from the center of the distribution?

Denominator ▼



Answer: Denominator

2. Which of the following is true of the t-distribution?

(1/1 point)

- ☐ Increasingly resembles the normal distribution as degrees of freedom increase.
- ☐ Assumes the population is normally distributed
- ☐ It has a greater spread than the normal distribution.
- ☒ All of the above.

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