

## Chapter 10

1. How do we formulate the hypothesis when testing the differences between two normal population means (two-sided)?

$$H_0: \mu_x - \mu_y = 0 \quad H_1: \mu_x - \mu_y \neq 0$$

2. What is the difference in t or z at a one-sided and two-sided test?

*In a two-tailed test, the alpha is divided by two.*

3. With which distribution do we test the equality of the variations between two normally distributed populations?

*With the F distribution*

4. How do we formulate the hypothesis when testing the equality of the variations between two normally distributed populations?

$$H_0: \sigma_x^2 = \sigma_y^2 \quad H_1: \sigma_x^2 \neq \sigma_y^2$$

5. What are the key assumptions of hypothesis testing based on?

*The assumption that the underlying distribution is normal, or that the central limit theory is applicable.*