Assignment 9

Thursday, March 9, 2023 12:19 PM

1. ⓐ For 1-sample test:

Pick a numeric column, say final_grade.

Hypothesis (H_1): Final grade is greater than 10

p-value = .036, which is less than .05

Thus, the data support H_1.

ⓑ For 2-Sample hypothesis

Pick 2 columns → 1 numeric (final_grade)

→ 1 binary (sex)

μ_1: final grade of female

μ_2: final grade of male

Hypothesis: Female's (μ_1) grades are 2 points more than male's (μ_2) grades.

H_1: $\mu_1 - \mu_2 > 2$

p-value = 1, which is greater than .05.

This means the data does not support H_1

2. Form a 95% CI.

Pick a numeric column, say final_grade

95% CI for μ
(9.962, 10.868)

This means we are 95% confident that the final grades are from 9.962 to 10.868.