

Lab Report: Hypothesis Testing – Single Population Mean

Name(s):

Key Terms

Provide the definitions for the following terms:

- **hypothesis testing:**
- **hypothesis:**
- **null hypothesis:**
- **alternative hypothesis:**
- **Type I error:**
- **Type II error:**
- **rare event rule:**
- **p-value:**

Data

What random sampling method did you use and why did you use such a method?

Record the sample data:

Hypotheses

- State the claim that you are testing.
 -
- State the null and alternative hypotheses.
 - H_0 :
 - H_a :
- Is this a right-tailed, left-tailed, or two-tailed test?
 -
- Define the random variable for this test.
 - $\bar{X} =$

Hypothesis Test—Known σ

Hypothesis Test—Unknown σ

Interpretation

Decisions on Null Hypothesis

σ	α	p-value	decision (reject or do not reject H_0)	reason for decision
Known	0.05			
Unknown	0.05			

Conclusions

σ	Conclusion
Known	
Unknown	

Discussion

- 1.
- 2.
- 3.