Lab Report: Hypothesis Testing – Single Population Proportion

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?

Summary Data:

Number of trials (number of students I surveyed): $n =$

Number of events (number of students I surveyed who own at least one dog at home): $x =$

Hypotheses

- State the claim that you are testing.

    o

- State the null and alternative hypotheses.

    o H_0:

    o H_a:

- Is this a right-tailed, left-tailed, or two-tailed test?

    o

- Define the random variable for this test.

    o $p' =$

Hypothesis Test

Interpretation

Decisions on Null Hypothesis

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

Conclusion

Discussion

1.

2.

3.