

## SECTION OVERVIEW

### 9.3: Hypothesis Testing with One Sample

One job of a statistician is to make statistical inferences about populations based on samples taken from the population. Confidence intervals are one way to estimate a population parameter. Another way to make a statistical inference is to make a decision about a parameter. For instance, a car dealer advertises that its new small truck gets 35 miles per gallon, on average. A tutoring service claims that its method of tutoring helps 90% of its students get an A or a B. A company says that women managers in their company earn an average of \$60,000 per year.

#### 9.3.1: Prelude to Hypothesis Testing

#### 9.3.2: Null and Alternative Hypotheses

9.3.2E: Null and Alternative Hypotheses (Exercises)

#### 9.3.3: Outcomes and the Type I and Type II Errors

9.3.3E: Outcomes and the Type I and Type II Errors (Exercises)

#### 9.3.4: Distribution Needed for Hypothesis Testing

9.3.4E: Distribution Needed for Hypothesis Testing (Exercises)

#### 9.3.5: Rare Events, the Sample, Decision and Conclusion

9.3.5E: Rare Events, the Sample, Decision and Conclusion (Exercises)

#### 9.3.6: Additional Information and Full Hypothesis Test Examples

#### 9.3.7: Hypothesis Testing of a Single Mean and Single Proportion (Worksheet)

#### 9.3.E: Hypothesis Testing with One Sample (Exercises)

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