AP Statistics

Time : 218h 8m / Lessons : 226 / Activities : 586

Unit	Lesson	Lesson Objectives	Time
Data Analysis	Introduction to AP Statistics		7m
	Introduction to Unit 1		1m
	Introduction to Statistics	1. Identify an individual from a set of data.	26m
		2. Classify a variable as categorical, discrete quantitative, or continuous quantitative.	
		3. Identify a variable from a set of data.	
	Reading Lesson Introduction		1h 31m
	Categorical Data Displays	1. Determine if a graphical display is appropriate for a given data set.	34m
		2. Identify a frequency table and a relative frequency table given data.	
		3. Interpret a bar graph or pie chart.	
		4. Determine what makes a graph of categorical data deceptive.	
	Reading Lesson 1.1, Part 1		1h 31m
	Relative Frequencies	1. Given a two-way table, calculate marginal and joint relative frequency distributions.	39m
		2. Interpret frequencies appropriately when given data from samples that differ considerably in sample size for two categorical variables.	
		3. Complete a two-way table, and calculate marginal and conditional distributions.	
		4. Create conditional relative frequency distributions.	
		5. Create marginal relative frequency distributions.	
		6. Given a two-way table, calculate conditional relative frequency distributions.	
	Reading Lesson 1.1, Part 2		1h 31m
	Comparing Two Categorical Variables	1. Display three categorical variables in side-by-side bar graphs.	39m
		2. Compare distributions of categorical data using segmented or side-by-side bar graphs.	
		3. Use appropriate phrasing in the depth and detail required by the College board to compare and contrast categorical variables.	
		4. Decide whether two categorical variables are associated using segmented or side-by-side bar graphs.	
	Reading Lesson 1.1, Part 3		1h 31m
	Describing and Comparing Data with Dotplots and Stemplots	1. Identify and/or describe a dotplot.	40m
		2. Identify and/or describe a stemplot.	
		3. Compare two distributions using dotplots or stemplots.	
	Reading Lesson 1.2, Part 1		1h 31m
	Describing and Comparing Data with Histograms	1. Relate measures of center to the shape of a distribution using histograms.	42m
		2. Identify the patterns, shape, and spread of a distribution using histograms.	
		3. Compare two distributions using histograms.	
	Reading Lesson 1.2, Part 2		1h 31m
	Measures of Center and Location	1. Analyze the effect of extreme values on the value of the mean and median.	42m
		2. Analyze the relationship between center and shape.	
		3. Interpret the measures of center.	
		4. Calculate measures of center, given a data set or a graphical display.	
	Reading Lesson 1.3, Part 1		1h 31m
	Measures of Variability	1. Interpret the range, standard deviation, or interquartile range of a univariate data set.	43m
		2. Compare the spread given graphical displays of two univariate data sets.	
		3. Calculate the range, standard deviation, or interquartile range of a univariate data set.	
		4. Use a graphing calculator to compute the numerical summary of a univariate data set.	
	Reading Lesson 1.3, Part 2		1h 31m
		1. Create a boxplot using a graphing calculator.	
		2. Identify the percent and number of values lying in each portion of a boxplot.	

	Boxplots and Outliers	3. Compare distributions presented in parallel boxplots.	45m
		4. Identify if a univariate data set contains any outliers.	
		5. Represent univariate data using a boxplot.	
	Reading Lesson 1.3, Part 3		1h 31m
	The AP Statistics Exam: Multiple-Choice and Free-Response Sections		1h 36m
	Unit 1 Test	1. Classify variables as categorical, discrete quantitative, or continuous quantitative.	40m
		2. Identify and/or describe a stemplot.	
		3. Identify and/or describe a dotplot.	
		4. Compare two distributions using histograms.	
		5. Compare distributions presented in parallel box plots.	
		6. Calculate/interpret the range, standard deviation, or interquartile range of a univariate data set.	
		7. Interpret a bar graph or pie chart.	
		8. Given a two-way table, calculate marginal and joint relative frequency distributions.	
		9. Identify if a univariate data set contains any outliers.	
		10. Identify patterns, shape, and spread of a distribution using histograms.	
		11. Analyze the relationship between center and shape.	
		12. Analyze the effect of extreme values on the value of the mean and median.	
		13. Given a two-way table, calculate conditional relative frequency distributions.	
		14. Relate measures of center to shape of a distribution using histograms.	
		15. Compare the spread given graphical displays of two univariate data sets.	
		16. Decide whether two categorical variables are associated using segmented or side-by-side bar graphs.	
		17. Compare two distributions using dotplots or stemplots.	
		18. Interpret the measures of center.	
		Introduction to Unit 2	1m
	Describing Location within a Distribution	1. Estimate the percentile of a value given a cumulative relative frequency graph.	35m
		2. Calculate the percentile for individual values in a quantitative data set.	
		3. Interpret the percentile for individual values in a quantitative data set.	
	Reading Lesson 2.1, Part 1		1h 31m
	Calculating and Interpreting z-Scores	1. Calculate a data value given a z-score, standard deviation, and mean.	38m
		2. Interpret a z-score.	
		3. Compare performance using three or more z-scores.	
		4. Calculate a z-score.	
		5. Compare performance using two or more z-scores.	
	Reading Lesson 2.1, Part 2		1h 31m
	Effect of Linear Transformations	1. Describe the center, shape, and spread of a distribution whose values have been transformed by a combination of addition or subtraction and by multiplying or	50m
		2. Describe the center, shape, and spread of a distribution whose values have been transformed by multiplying or dividing by a constant value.	
		3. Describe the center, shape, and spread of a distribution whose values have been transformed by adding or subtracting a constant value.	
	Reading Lesson 2.1, Part 3		1h 31m
	Uniform Density Curves	1. Describe a density curve.	31m
		2. Estimate the mean and median value of a density curve.	
		3. Calculate probabilities using the appropriate area within a uniform density curve.	
	Reading Lesson 2.2, Part 1		1h 31m
	Normal Distributions	1. Calculate probabilities using the empirical rule.	41m
		2. Describe a Normal distribution using the empirical rule.	
		3. Describe the properties of a Normal distribution.	
	Reading Lesson 2.2, Part 2		1h 31m
		1. Estimate the proportion of values in a Normal distribution to the left of a value or to the right of a value using a Normal distribution table.	

The Normal Distribution	Finding Areas within a Normal Distribution	2. Estimate the proportion of values in a Normal distribution for inclusive intervals of less than or equal to, greater than or equal to, or between and including values.	40m
		3. Estimate the proportion of values in a Normal distribution between two values using a Normal distribution table.	
		4. Estimate the proportion of values in a Normal distribution using a graphing calculator.	
		5. Estimate the proportion of values in a standard Normal distribution using a graphing calculator.	
	Reading Lesson 2.2, Part 3		1h 31m
	Finding Values from Probabilities	1. Determine the z-score for a given probability.	39m
		2. Determine the data-value, x, in a Normal distribution for a given percentile.	
		3. Determine the value in a Normal distribution that bounds a given area, using a graphing calculator.	
	Reading Lesson 2.2, Part 4		1h 31m
	Assessing Normality	1. For a set of quantitative data, decide if the distribution is approximately Normal using numerical evidence.	28m
		2. For a set of quantitative data, decide if the distribution is approximately Normal using a Normal probability plot.	
		3. For a set of quantitative data, decide if the distribution is approximately Normal using graphical evidence.	
	Reading Lesson 2.2, Part 5		1h 31m
	Unit 2 AP Practice Free-Response Questions		1h 30m
	Unit 2 Test	1. Interpret a z-score.	40m
		2. Calculate probabilities using the appropriate area within a uniform density curve.	
		3. Describe the properties of a normal distribution.	
		4. Calculate a data value given a z-score, standard deviation, and mean.	
		5. Estimate the proportion of values in a Normal distribution for inclusive intervals of less than or equal to, greater than or equal to, or between and including values.	
		6. Estimate the proportion of values in a Normal distribution using a graphing calculator.	
		7. Describe the center, shape and spread of a distribution whose values have been transformed by multiplying or dividing by a constant value.	
		8. Describe the center, shape, and spread of a distribution whose values have been transformed by a combination of addition or subtraction and by multiplying or	
		9. Estimate the proportion of values in a Normal distribution between two values using a Normal distribution table.	
		10. For a set of quantitative data, decide if the distribution is approximately Normal using graphical evidence.	
		11. Determine the z-score for a given probability.	
		12. Describe the center, shape and spread of a distribution whose values have been transformed by adding or subtracting a constant value.	
		13. Compare performance using two or more z-scores.	
		14. For a set of quantitative data, decide if the distribution is approximately Normal using a Normal probability plot.	
		15. Describe a density curve. Estimate the mean and median value of a density curve.	
		16. Calculate probabilities using the empirical rule.	
		17. For a set of quantitative data, decide if the distribution is approximately Normal using numerical evidence.	
		18. Estimate the proportion of values in a Normal distribution to the left of a value or to the right of a value using a Normal distribution table.	
		19. Calculate the percentile for individual values in a quantitative data set.	
		20. Interpret the percentile for individual values in a quantitative data set.	
		Introduction to Unit 3	1m
	The Relationship between Two Quantitative Variables	1. Describe the direction, form, strength, and unusual observations given a scatterplot.	37m
		2. Identify the explanatory and response variable.	
		3. Represent two quantitative variables using a scatterplot.	
		4. Create a scatterplot using a graphing calculator.	
	Reading Lesson 3.1, Part 1		1h 31m
	Correlation	1. Describe the effect of unusual observations on the correlation.	37m
		2. Interpret the correlation of a linear relationship between two quantitative variables.	
		3. Distinguish between correlation and causation.	
	Reading Lesson 3.1, Part 2		1h 31m
	Making Predictions from a Least-Squares Regression Line	1. Make a prediction using a linear model.	29m
		2. Interpret the slope and y-intercept of a linear model.	
	Reading Lesson 3.2, Part 1		1h 31m

Simple Linear Regression	Calculating the Least-Squares Regression Line	1. Explain why the line that is the best fit for a linear relationship is called the least-squares regression line.	44m
		2. Compute a least-squares regression line and correlation using technology.	
		3. Identify a least-squares regression line using computer output.	
	Reading Lesson 3.2, Part 2		1h 31m
	Residuals	1. Create a residual plot on the graphing calculator.	41m
		2. Assess linearity based upon a residual plot.	
		3. Create a residual plot.	
		4. Calculate residuals.	
	Reading Lesson 3.2, Part 3		1h 31m
	R-squared and s	1. Identify s.	55m
		2. Determine r2 using a graphing calculator or computer output.	
		3. Interpret r2 and s in context.	
		4. Describe the effect that influential points have on the least-squares regression line.	
	Reading Lesson 3.2, Part 4		1h 31m
	Calculating a Least-Squares Regression Line from Summary Statistics	1. Write the equation of a least-squares regression line from summary statistics.	25m
		2. Calculate the slope of a least-squares regression line from summary statistics.	
		3. Calculate the y-intercept of a least-squares regression line from summary statistics.	
	Reading Lesson 3.2, Part 5		1h 31m
	Transforming to Achieve Linearity	1. Transform a nonlinear data set using powers, roots, or logarithms.	34m
		2. Write the equation of a least-squares regression line that describes a transformed data set given computer output.	
		3. Predict the response variable based upon the equation of a least-squares regression line that describes a transformed data set.	
	Reading Lesson 3.3, Part 1		1h 31m
	Choosing the Best Model	1. Assess how well a model fits a given data set.	32m
		2. Choose an appropriate model for a bivariate data set given regression output and residual plots.	
		3. Make a prediction based on the computer output provided for various regression models.	
	Reading Lesson 3.3, Part 2		1h 31m
	Unit 3 AP Practice Free-Response Questions		1h 30m
	Unit 3 Test	1. Interpret r^2 and s in context. Identify s.	40m
		2. Identify a least-squares regression line using computer output.	
		3. Assess linearity based upon a residual plot.	
		4. Make a prediction based on computer output provided for various regression models.	
		5. Interpret the correlation of a linear relationship between two quantitative variables.	
		6. Make a prediction using a linear model.	
		7. Choose an appropriate model for a bivariate data set given regression output and residual plots.	
		8. Distinguish between correlation and causation.	
		9. Identify the explanatory and response variable. Represent two quantitative variables using a scatterplot.	
		10. Describe the direction, form, strength, and unusual observations given a scatterplot.	
		11. Calculate residuals.	
		12. Determine r^2 using a graphing calculator or computer output.	
		13. Write the equation of a least-squares regression line that describes a transformed data set given computer output.	
		14. Describe the effect of unusual observations on the correlation.	
		15. Interpret the slope and y-intercept of a linear model.	
		16. Explain why the line that is the best fit for a linear relationship is called the least-squares regression line.	
		17. Write the equation of a least-squares regression line from summary statistics	
		18. Describe the effect that influential points have on the least-squares regression line.	
	Introduction to Unit 4		1m
		1. Identify whether a study utilized convenience sampling or voluntary response sampling.	

Sampling and Experimentation	Introduction to Sampling Methods	2. Analyze a study to determine if bias is present and whether that bias leads to an overestimate or underestimate of the population parameter.	32m
		3. Describe a population and sample given a description of a study.	
	Reading Lesson 4.1, Part 1		1h 31m
	Simple Random Sample	1. Describe the process of simple random sampling.	45m
		2. Explain the process of generating a simple random sample using a random number generator.	
		3. Explain the process of generating a simple random sample using a table of random digits.	
	Reading Lesson 4.1, Part 2		1h 31m
	Other Sampling Methods	1. Distinguish between stratified random sampling, systematic random sampling, and cluster sampling.	44m
		2. Describe the process and/or advantages and disadvantages of cluster sampling.	
		3. Describe the process and/or advantages and disadvantages of stratified random sampling.	
		4. Describe the process and/or advantages and disadvantages of systematic random sampling.	
	Reading Lesson 4.1, Part 3		1h 31m
	Considerations When Sampling	1. Describe the direction of the bias presented in a study.	42m
		2. Identify whether a study is affected by undercoverage, nonresponse, response, or question-wording bias.	
		3. Describe the sampling problems of undercoverage, nonresponse, response, and question-wording bias.	
	Reading Lesson 4.1, Part 4		1h 31m
	Sampling Project		1h 30m
	Observational Studies and Experiments	1. Distinguish between an observational study and an experiment.	48m
		2. Identify the explanatory variable, response variable, treatments, experimental units/subjects, factors, and levels of an experimental design.	
		3. Describe the effect of confounding.	
	Reading Lesson 4.2, Part 1		1h 31m
	Additional Principles of Experimental Design	1. Identify the benefits of using the principle of random assignment within an experimental design.	39m
		2. Identify the benefits of using the principle of control and replication within an experimental design.	
		3. Identify the benefits of using the principle of comparison within an experimental design.	
		4. Identify the placebo effect, as well as the benefits of blindness, within an experimental design.	
	Reading Lesson 4.2, Part 2		1h 31m
	How to Experiment Well	1. Describe the randomization step within an experimental design using a random number generator.	34m
		2. Describe the randomization step within an experimental design using a table of random digits.	
		3. Describe the randomization step within an experimental design using slips of paper.	
		4. Identify the reason for randomization for a well-constructed experimental design.	
	Reading Lesson 4.2, Part 3		1h 31m
	Experimental Designs	1. Describe the structure of a randomized block design, including details about the randomization process.	29m
		2. Describe the structure of the matched pairs version of a randomized block design, including details about the randomization process.	
		3. Describe the structure of a completely randomized design, including details about the randomization process.	
	Reading Lesson 4.2, Part 4		1h 31m
	Scope of Inference	1. Determine if the results of an experiment are statistically significant based upon simulated results.	43m
		2. Determine the appropriate scope of inference for the study design used.	
		3. Describe the concept of sampling variability with regards to the size of the sample.	
	Reading Lesson 4.3		1h 31m
	Unit 4 AP Practice Free-Response Questions		1h 30m
		1. Describe the randomization step within an experimental design using a random number generator.	
		2. Describe the effect of confounding.	
		3. Describe the sampling problems of undercoverage, nonresponse, response, and question wording bias.	
		4. Distinguish between an observational study and an experiment.	
		5. Describe the randomization step within an experimental design using slips of paper.	
		6. Identify the benefits of using the principle of control and replication within an experimental design.	
		7. Identify the explanatory variable, response variable, treatments, experimental units/subjects, the factors and the levels of an experimental design.	

	Unit 4 Test	8. Identify whether a study is affected by undercoverage, nonresponse, response, or question wording bias.	40m
		9. Describe the structure of a randomized block design, including details about the randomization process.	
		10. Identify the placebo effect, as well as the benefits of blindness within an experimental design.	
		11. Identify the reason for randomization for a well-constructed experimental design.	
		12. Describe the structure of the matched pairs version of a randomized block design, including details about the randomization process.	
		13. Determine the appropriate scope of inference for the study design used.	
		14. Distinguish between stratified random sampling, systematic random sampling, and cluster sampling.	
		15. Describe the process of simple random sampling.	
		16. Analyze a study to determine if bias is present and whether that bias leads to an over or underestimate of the population parameter.	
		17. Describe the process and/or advantages and disadvantages of stratified random sampling.	
		18. Identify whether a study utilized convenience sampling or voluntary response sampling.	
		19. Describe the process and/or advantages and disadvantages of cluster sampling.	
Probability	Introduction to Unit 5		1m
	Introduction to Probability	1. Interpret probability as the long-run relative frequency of an event.	56m
		2. Describe the law of large numbers.	
		3. Conduct a simulation using a graphing calculator.	
		4. Describe how a simulation is used to imitate a random process.	
	Reading Lesson 5.1		1h 31m
	Probability Rules	1. Apply the complement rule and the addition rule for mutually exclusive events.	49m
		2. Apply the basic probability rules, which indicate that the probability of an event is a number between 0 and 1 and that the sum of the probabilities of all outcomes in	
		3. Identify a probability model to describe a random process.	
	Reading Lesson 5.2, Part 1		1h 31m
	Applying Probability Rules	1. Determine probabilities using a two-way table.	47m
		2. Determine probabilities using a Venn diagram.	
	Reading Lesson 5.2, Part 2		1h 31m
	Conditional Probabilities	1. Calculate a conditional probability.	30m
		2. Determine if two events are independent.	
		3. Interpret a conditional probability.	
	Reading Lesson 5.3, Part 1		1h 31m
	The Multiplication Rule for Dependent Events	1. Calculate a probability using a tree diagram.	31m
		2. Use a tree diagram to determine the sample space.	
		3. Calculate a probability using the general multiplication rule.	
	Reading Lesson 5.3, Part 2		1h 31m
	The Multiplication Rule for Independent Events	1. Calculate a probability using the multiplication rule for independent events.	47m
		2. Calculate the probability of "at least one" using the multiplication rule for independent events or other multi-step probabilities.	
		3. Determine if it is appropriate to use the multiplication rule for independent events, the addition rule for mutually exclusive events, or neither.	
	Reading Lesson 5.3, Part 3		1h 31m
	Unit 5 AP Practice Free-Response Questions		1h 30m
	Unit 5 Test	1. Describe the law of large numbers.	40m
		2. Interpret probability as the long-run relative frequency of an event.	
		3. Determine probabilities using a Venn diagram.	
		4. Simulate chance behavior.	
		5. Calculate a probability using the general multiplication rule.	
		6. Determine probabilities using a two-way table.	
		7. Identify a tree diagram	
		8. Apply the basic probability rules which indicate that the probability of an event is a number between 0 and 1 and that the sum of the probabilities all outcomes in the	
		9. Create a probability model to describe a random process.	

	Unit 5 Test	10. Determine if two events are independent.	40m
		11. Calculate a conditional probability.	
		12. Interpret a conditional probability.	
		13. Apply the complement rule and the addition rule for mutually exclusive events	
		14. Describe how a simulation is used to imitate a random process.	
		15. Calculate a probability using a tree diagram.	
		16. Calculate the probability of "at least one" using the multiplication rule for independent events and other multi-step probabilities.	
		17. Determine if it is appropriate to use the multiplication rule for independent events, the addition rule for mutually exclusive events, or neither.	
		18. Calculate a probability using the multiplication rule for independent events.	
Random Variables	Introduction to Unit 6		1m
	Introduction to Random Variables	1. Identify a probability distribution histogram of a discrete random variable.	39m
		2. Describe the shape of a probability distribution histogram of a discrete random variable.	
		3. Interpret the probability of an event given a probability distribution of a discrete random variable.	
		4. Calculate the probability of an event given a probability distribution of a discrete random variable.	
	Reading Lesson 6.1, Part 1		1h 31m
	Discrete Random Variables - Mean	1. Calculate the mean, median, and/or standard deviation of the probability distribution of a discrete random variable.	30m
		2. Interpret the standard deviation of the probability distribution of a discrete random variable.	
		3. Compare the shape, center, and/or variability given two probability distribution histograms.	
	Reading Lesson 6.1, Part 2		1h 31m
	Continuous Random Variables	1. Distinguish between a discrete and a continuous random variable.	47m
		2. Calculate a probability or value for a uniform random variable.	
		3. Calculate a probability or value for a Normal random variable.	
		4. Determine the mean of a uniform random variable.	
	Reading Lesson 6.1, Part 3		1h 31m
	Transforming Random Variables	1. Calculate a probability of a value within the distribution of a transformed random variable.	36m
		2. Calculate the measures of center and variability of a transformed random variable.	
		3. Interpret the mean and standard deviation of a transformed random variable.	
	Reading Lesson 6.2, Part 1		1h 31m
	Combining Two Random Variables	1. Calculate the mean and standard deviation of the sum or difference of two or more random variables.	28m
		2. Interpret the mean and standard deviation of the sum or difference of two or more random variables.	
		3. Calculate a probability based upon the sum or difference of two or more random variables.	
		4. Calculate the mean and standard deviation of a linear combination of random variables.	
	Reading Lesson 6.2, Part 2		1h 31m
	Binomial Random Variables	1. Describe the shape, center, and/or variability of a probability histogram of a binomial random variable.	31m
		2. Determine if a scenario describes a binomial setting.	
		3. Calculate the mean and standard deviation of a binomial random variable.	
	Reading Lesson 6.3, Part 1		1h 31m
	Binomial Probabilities	1. Calculate cumulative binomial probabilities using the binomial probability formula.	1h
		2. Calculate the binomial probability P(X = k) using the binomial probability formula.	
		3. Calculate the binomial probability P(X = k) using a graphing calculator.	
		4. Calculate cumulative binomial probabilities using a graphing calculator.	
		5. Approximate binomial probabilities using a Normal distribution.	
	Reading Lesson 6.3, Part 2		1h 31m
	Geometric Random Variables	1. Calculate a geometric probability using the geometric probability formula.	42m
		2. Calculate the mean and standard deviation of a geometric random variable.	
		3. Determine if a scenario describes a geometric setting.	
		4. Calculate a geometric probability using a graphing calculator.	

	Reading Lesson 6.3, Part 3		1h 31m
	Unit 6 AP Practice Free-Response Questions		1h 30m
	Unit 6 Test	1. Calculate the mean and standard deviation of a transformed random variable.	40m
		2. Calculate a probability of a value within the distribution of a transformed random variable.	
		3. Calculate the probability of an event given a probability distribution of a discrete random variable.	
		4. Calculate the mean, median, and/or standard deviation of the probability distribution of a discrete random variable.	
		5. Calculate the mean and standard deviation of the sum or difference of two or more random variables.	
		6. Interpret the mean and standard deviation of a transformed random variable.	
		7. Interpret the standard deviation of the probability distribution of a discrete random variable.	
		8. Calculate a probability or value for a Normal random variable.	
		9. Calculate the mean and standard deviation of a binomial random variable.	
		10. Calculate a probability based upon the sum or difference of two or more random variables.	
		11. Calculate binomial probabilities using the binomial probability formula.	
		12. Interpret the mean and standard deviation of the sum or difference of two or more random variables.	
		13. Calculate the binomial probability P(X = k) using a graphing calculator.	
		14. Calculate cumulative binomial probabilities using a graphing calculator.	
		15. Calculate the mean and standard deviation of a geometric random variable.	
		16. Calculate a geometric probability using a graphing calculator.	
Cumulative Exam 1	Cumulative Exam	1. Calculate residuals.	1h 15m
		2. Describe the direction, form, strength, and unusual observations given a scatterplot.	
		3. Assess linearity based upon a residual plot.	
		4. Estimate the proportion of values in a Normal distribution to the left of a value or to the right of a value using a Normal distribution table.	
		5. Write the equation of a least-squares regression line that describes a transformed data set given computer output.	
		6. Identify whether a study utilized convenience sampling or voluntary response sampling.	
		7. Identify a least-squares regression line using computer output.	
		8. Make a prediction using a linear model.	
		9. Interpret the slope and y-intercept of a linear model.	
		10. Determine r^2 using a graphing calculator or computer output. Interpret r^2and s in context. Identify s.	
		11. For a set of quantitative data, decide if the distribution is approximately Normal using a Normal probability plot.	
		12. Determine the z-score for a given a probability.	
		13. Choose an appropriate model for a bivariate data set given regression output and residual plots.	
		14. Make a prediction based on computer output provided for various regression models.	
		15. Write the equation of a least-squares regression line from summary statistics	
		16. Estimate the proportion of values in a Normal distribution between two values using a Normal distribution table.	
		17. Describe the structure of the matched pairs version of a randomized block design, including details about the randomization process.	
		18. Calculate a geometric probability using a graphing calculator.	
		19. Determine if it is appropriate to use the multiplication rule for independent events, the addition rule for mutually exclusive events, or neither.	
		20. Calculate a conditional probability.	
		21. Distinguish between an observational study and an experiment.	
		22. Calculate a probability using the general multiplication rule.	
		23. Calculate a probability using the multiplication rule for independent events.	
		24. Calculate the probability of "at least one" using the multiplication rule for independent events and other multi-step probabilities.	
		25. Calculate the mean and standard deviation of a binomial random variable.	
		26. Calculate a probability based upon the sum or difference of two or more random variables.	
		27. Describe the structure of a randomized block design, including details about the randomization process.	
		28. Identify the explanatory variable, response variable, treatments, experimental units/subjects, the factors and the levels of an experimental design.	
		29. Determine if two events are independent.	

		30. Calculate the mean, median, and/or standard deviation of the probability distribution of a discrete random variable.	
		31. Calculate cumulative binomial probabilities using a graphing calculator.	
		32. Apply the complement rule and the addition rule for mutually exclusive events	
		33. Distinguish between stratified random sampling, systematic random sampling, and cluster sampling.	
		34. Identify whether a study is affected by undercoverage, nonresponse, response, or question wording bias.	
		35. Describe the effect of confounding.	
		36. Calculate the mean and standard deviation of a transformed random variable.	
		37. Calculate a probability or value for a Normal random variable.	
		38. Calculate a probability using a tree diagram.	
		39. Analyze a study to determine if bias is present and whether that bias leads to an over or underestimate of the population parameter.	
		40. Determine probabilities using a two-way table.	
		41. Identify the benefits of using the principle of control and replication within an experimental design.	
		42. Identify if a univariate data set contains any outliers.	
		43. Identify patterns, shape and spread of a distribution using histograms.	
		44. Analyze the relationship between center and shape.	
		45. Compare distributions presented in parallel box plots.	
		46. Decide whether two categorical variables are associated using segmented or side-by-side bar graphs.	
		47. Describe a density curve. Estimate the mean and median value of a density curve.	
		48. Compare performance using two or more z-scores.	
		49. Calculate a data value given a z-score, standard deviation, and mean.	
		50. Compare the spread given graphical displays of two univariate data sets.	
Sampling Distributions	Introduction to Unit 7		1m
	Introduction to Sampling Distributions	1. Identify the population, parameter, sample, and statistic given a scenario.	49m
		2. Distinguish between the population distribution, sample distribution, and a sampling distribution of a statistic.	
		3. Identify a sampling distribution.	
	Reading Lesson 7.1, Part 1		1h 31m
	Sampling Distributions - Center and Variability	1. Determine if a sample statistic is an unbiased estimator of the population parameter.	45m
		2. Describe the variability of a sampling distribution as it relates to the size of the sample.	
		3. Evaluate a claim about a population parameter based upon a sampling distribution of a statistic.	
	Reading Lesson 7.1, Part 2		1h 31m
	Sampling Distribution of the Sample Proportion	1. Interpret the standard deviation of the sampling distribution of the sample proportion or the sampling distribution of the difference in two sample proportions.	57m
		2. Determine the shape, mean, and/or standard deviation of the sampling distribution of the sample proportion.	
		3. Determine the shape, mean, and/or standard deviation of the sampling distribution of the difference in two sample proportions.	
	Reading Lesson 7.2, Part 1		1h 31m
	Calculating Probabilities for Sampling Distribution	1. Determine if there is convincing evidence against a claim based upon a calculated probability.	32m
		2. Calculate a probability based upon the sampling distribution of p-hat1 - p-hat2.	
		3. Calculate a probability based upon the sampling distribution of p-hat.	
	Reading Lesson 7.2, Part 2		1h 31m
	Sampling Distribution of the Sample Mean	1. Describe the shape of the sampling distribution of the sample mean.	47m
		2. Describe the shape, mean, and/or standard deviation of the sampling distribution of the sample mean.	
		3. Describe the shape, mean, and/or standard deviation of the sampling distribution of the difference in two sample means.	
	Reading Lesson 7.3, Part 1		1h 31m
	Using the Central Limit Theorem	1. Calculate probabilities given a Normal population based upon the sampling distribution of the sample mean or difference in sample means.	45m
		2. Calculate probabilities given a non-Normal population, when appropriate, based upon the sampling distribution of the sample mean or difference in sample means.	
	Reading Lesson 7.3, Part 2		1h 31m
	Unit 7 AP Practice Free-Response Questions		1h 30m
		1. Distinguish between the population distribution, sample distribution, and a sampling distribution of a statistic.	

	Unit 7 Test	2. Evaluate a claim about a population parameter based upon a sampling distribution of a statistic.	40m
		3. Determine if a sample statistic is an unbiased estimator of the population parameter.	
		4. Determine the shape, mean and/or standard deviation of the sampling distribution of the sample proportion.	
		5. Identify a sampling distribution.	
		6. Identify the population, parameter, sample, and statistic given a scenario.	
		7. Describe the variability of a sampling distribution as it relates to the size of the sample.	
		8. Determine if there is convincing evidence against a claim based upon a calculated probability.	
		9. Calculate probabilities given a non-normal population, when appropriate, based upon the sampling distribution of the sample mean or difference in sample means.	
		10. Calculate a probability based upon the sampling distribution of p-hat1 - p-hat2.	
		11. Interpret the standard deviation of the sampling distribution of the sample proportion or the sampling distribution of the difference in two sample proportions.	
		12. Determine the shape, mean and/or standard deviation of the sampling distribution of the difference in two sample proportions.	
		13. Describe the shape, mean and/or standard deviation of the sampling distribution of the difference in two sample means.	
		14. Describe the shape, mean and/or standard deviation of the sampling distribution of the sample mean.	
		15. Calculate probabilities given a normal population based upon the sampling distribution of the sample mean or difference in sample means.	
		16. Describe the shape of the sampling distribution of the sample mean.	
		17. Calculate a probability based upon the sampling distribution of p-hat.	
Estimating Proportions with Confidence	Introduction to Unit 8		1m
	Introduction to Confidence Intervals	1. Evaluate a claim about a population parameter given a confidence interval.	36m
		2. Interpret a confidence interval.	
		3. Calculate the value of a point estimate and/or the margin of error of a given confidence interval.	
	Reading Lesson 8.1, Part 1		1h 31m
	More about Confidence Intervals	1. Determine how the margin of error and width of the interval is affected by the confidence level and sample size.	37m
		2. Identify the sources of variability that are and are not accounted for by the margin of error in a confidence interval.	
		3. Interpret the confidence level.	
	Reading Lesson 8.1, Part 2		1h 31m
	Preparing to Estimate a Population Proportion	1. Verify if each of the conditions for calculating a confidence interval for a population proportion are met.	58m
		2. Determine the critical value for a specific confidence level for a population proportion using a table and technology.	
		3. Calculate the point estimate and standard error of the sample proportion.	
	Reading Lesson 8.2, Part 1		1h 31m
	Estimating a Population Proportion	1. Calculate the minimum sample size that is needed to construct a confidence interval for a population proportion with a given confidence level and a given margin	39m
		2. Construct a confidence interval for a population proportion.	
		3. Evaluate a claim about a population proportion based upon a calculated confidence interval.	
	Reading Lesson 8.2, Part 2		1h 31m
	Estimating the Difference between Two Population Proportions	1. Determine whether the conditions for calculating a confidence interval for a difference in two population proportions are met.	43m
		2. Construct a confidence interval for a difference in two population proportions.	
		3. Evaluate a claim about a difference in two population proportions based upon a calculated confidence interval.	
		4. Construct a confidence interval for a difference in two population proportions using a graphing calculator.	
	Reading Lesson 8.3		1h 31m
	Unit 8 AP Practice Free-Response Questions		1h 30m
		1. Interpret a confidence interval.	
		2. Evaluate a claim about a population parameter given a confidence interval.	
		3. Calculate the value of a point estimate and/or the margin of error of a given confidence interval.	
		4. Interpret the confidence level.	
		5. Determine how the margin of error and width of the interval is affected by the confidence level and sample size.	
		6. Identify the sources of variability that are and are not accounted for by the margin of error in a confidence interval.	
		7. Calculate the minimum sample size that is needed to construct a confidence interval for a population proportion with a given confidence level and a given margin	
		8. Construct a confidence interval for a population proportion.	

	Unit 8 Test	9. Evaluate a claim about a population proportion based upon a calculated confidence interval.	40m
		10. Determine the critical value for a specific confidence level for a population proportion using a table and technology.	
		11. Calculate the point estimate and standard error of the sample proportion.	
		12. Verify if each of the conditions for calculating a confidence interval for a population proportion are met.	
		13. Construct a confidence interval for a population proportion using a graphing calculator	
		14. Determine whether the conditions for calculating a confidence interval for a difference in two population proportions are met.	
		15. Construct a confidence interval for a difference in two population proportions using a graphing calculator.	
		16. Construct a confidence interval for a difference in two population proportions.	
		17. Evaluate a claim about a difference in two population proportions based upon a calculated confidence interval.	
Testing Claims about Proportions	Introduction to Unit 9		1m
	Introduction to Hypothesis Testing	1. Draw a conclusion based upon the P-value.	42m
		2. Interpret the P-value.	
		3. State appropriate hypotheses for performing a hypothesis test about a population proportion.	
	Reading Lesson 9.1, Part 1		1h 31m
	Type I and Type II Errors	1. Describe and give a consequence of a Type I and Type II error.	33m
		2. Draw a conclusion based upon an estimated P-value.	
		3. Estimate a P-value based upon the results of a simulation.	
	Reading Lesson 9.1, Part 2		1h 31m
	Preparing to Test a Claim about a Population Proportion	1. Determine if the conditions needed to carry out a significance test about a population proportion are met.	42m
		2. Calculate the test statistic and the P-value for a significance test about a population proportion.	
		3. Draw a conclusion based upon a calculated P-value.	
	Reading Lesson 9.2, Part 1		1h 31m
	Testing a Claim about a Population Proportion	1. Conduct a hypothesis test about a population proportion given computer output.	1h 2m
		2. Calculate a test statistic and P-value for a hypothesis test about a population proportion using a graphing calculator.	
		3. Conduct a hypothesis test about a population proportion.	
		4. Describe the power of a test and/or what influences the power of a test.	
	Reading Lesson 9.2, Part 2		1h 31m
	Testing a Claim about a Difference between Proportions	1. Perform one step of a hypothesis test for a difference in two population proportions.	53m
		2. Conduct a hypothesis test about a difference in two population proportions.	
		3. Calculate a test statistic and P-value for a hypothesis test about a population proportion using a graphing calculator.	
	Reading Lesson 9.3		1h 31m
	Unit 9 AP Practice Free-Response Questions		1h 30m
	Unit 9 Test	1. Interpret the P-value.	40m
		2. Perform one step of a hypothesis test for a difference in two population proportions.	
		3. Draw a conclusion based upon an estimated P-value.	
		4. Estimate a P-value based upon the results of a simulation.	
		5. Describe the power of a test and/or what influences the power of a test.	
		6. Conduct a hypothesis test about a difference in two population proportions.	
		7. Calculate a test statistic and P-value for a hypothesis test about a population proportion using a graphing calculator.	
		8. Determine if the conditions needed to carry out a hypothesis test about a population proportion are met.	
		9. Describe and give a consequence of a Type I and Type II error.	
		10. Draw a conclusion based upon the P-value.	
		11. Draw a conclusion based upon a calculated P-value.	
		12. Calculate the test statistic and the P-value for a hypothesis test about a population proportion.	
		13. Calculate a test statistic and P-value for a hypothesis test about a difference in two population proportions using a graphing calculator.	
		14. State appropriate hypotheses for performing a hypothesis test about a population proportion.	
		15. Conduct a hypothesis test about a population proportion given computer output.	

		16. Conduct a hypothesis test about a population proportion.	
Estimating Means with Confidence	Introduction to Unit 10		1m
	Preparing to Estimate a Population Mean	1. Determine the t critical value needed to compute a C% confidence interval for a population mean.	39m
		2. Interpret the standard error of the mean.	
		3. Calculate the standard error of the mean.	
		4. Determine if the conditions required to compute a C% confidence interval for a population mean are met.	
	Reading Lesson 10.1, Part 1		1h 31m
	Estimating a Population Mean	1. Construct a confidence interval for a population mean.	59m
		2. Construct a confidence interval for a population mean using a graphing calculator.	
		3. Evaluate a claim about a population mean based upon a calculated confidence interval.	
		4. Describe how the margin of error of a confidence interval can be reduced.	
	Reading Lesson 10.1, Part 2		1h 31m
	Estimating a Difference in Two Population Means	1. Determine if the conditions required to compute a confidence interval for a difference in two population means are met.	47m
		2. Evaluate a claim about the difference in the population means based upon a calculated confidence interval.	
		3. Construct a confidence interval for a difference in two population means.	
		4. Construct a confidence interval for a difference in two population means using a graphing calculator.	
	Reading Lesson 10.2, Part 1		1h 31m
	Estimating the Mean Difference	1. Construct a confidence interval for a mean difference using a graphing calculator.	35m
		2. Construct a confidence interval for a mean difference.	
		3. Calculate the mean difference and the standard deviation of the differences for paired data.	
		4. Evaluate a claim about a population mean difference based upon a confidence interval.	
	Reading Lesson 10.2, Part 2		1h 31m
	Unit 10 AP Practice Free-Response Questions		1h 30m
	Unit 10 Test	1. Determine the t critical value needed to compute a C% confidence interval for a population mean.	40m
		2. Calculate the standard error of the mean.	
		3. Determine if the conditions required to compute a C% confidence interval for a population mean are met.	
		4. Construct a confidence interval for a mean difference.	
		5. Interpret the standard error of the mean.	
		6. Describe how the margin of error of a confidence interval can be reduced.	
		7. Determine if the conditions required to compute a confidence interval for a difference in two population means are met.	
		8. Evaluate a claim about the difference in the population means based upon a calculated confidence interval.	
		9. Calculate the mean difference and the standard deviation of the differences for paired data.	
		10. Construct a confidence interval for a population mean.	
		11. Evaluate a claim about a population mean difference based upon a confidence interval.	
		12. Evaluate a claim about a population mean based upon a calculated confidence interval.	
		13. Construct a confidence interval for a difference in two population means.	
	Introduction to Unit 11		1m
	Preparing to Test a Claim about a Mean	1. Determine if the conditions needed to carry out a hypothesis test about a population mean are satisfied.	33m
		2. Calculate the test statistic and the P-value for a hypothesis test about a population mean.	
		3. State appropriate hypotheses for performing a hypothesis test about a population mean.	
		4. Draw a conclusion based upon a calculated P-value.	
	Reading Lesson 11.1, Part 1		1h 31m
	Testing a Claim about a Population Mean	1. Conduct a hypothesis test about a population mean.	55m
		2. Calculate a test statistic and P-value for a hypothesis test about a population mean using a graphing calculator.	
		3. Identify and give a consequence of a Type I and Type II error.	
		4. Interpret the P-value.	
	Reading Lesson 11.1, Part 2		1h 31m

Testing Claims about Means	Significance Tests and Confidence Intervals	1. Describe the power of a test and/or what influences the power of a test.	29m
		2. State a conclusion about a significance test for a population mean based upon a confidence interval.	
	Reading Lesson 11.1, Part 3		1h 31m
	Testing a Claim about a Difference between Means	1. Conduct a significance test about a difference in two population means.	46m
		2. Perform one step of a significance test for a difference in two population means.	
		3. Calculate a test statistic and P-value for a significance test about a difference in two population means using a graphing calculator.	
	Reading Lesson 11.2, Part 1		1h 31m
	Testing a Claim about a Mean Difference	1. Calculate a test statistic and P-value for a hypothesis test about a mean difference using a graphing calculator.	44m
		2. Perform one step of a hypothesis test for a mean difference.	
		3. Conduct a hypothesis test about a mean difference.	
	Reading Lesson 11.2, Part 2		1h 31m
	Choosing the Appropriate Inference Procedure	1. Distinguish between one sample, two samples, and paired data.	37m
		2. Determine the appropriate inference procedure.	
	Reading Lesson 11.2, Part 3		1h 31m
	Statistical Inference Project		1h 30m
	Unit 11 AP Practice Free-Response Questions		1h 30m
	Unit 11 Test	1. Calculate the test statistic and the P-value for a hypothesis test about a population mean.	40m
		2. State appropriate hypotheses for performing a hypothesis test about a population mean.	
		3. Determine if the conditions needed to carry out a hypothesis test about a population mean are satisfied.	
		4. Determine the appropriate inference procedure.	
		5. Interpret the P-value.	
		6. Perform one step of a hypothesis test for a difference in two population means.	
		7. Perform one step of a hypothesis test for a mean difference.	
		8. Conduct a hypothesis test about a mean difference.	
		9. Describe the power of a test and/or what influences the power of a test.	
		10. State a conclusion about a hypothesis test for a population mean based upon a confidence interval.	
		11. Conduct a hypothesis test about a difference in two population means.	
		12. Distinguish between one sample, two samples, and paired data.	
		13. Draw a conclusion based upon a calculated P-value.	
		14. Conduct a hypothesis test about a population mean.	
		15. Identify and give a consequence of a Type I and Type II error.	
	Introduction to Unit 12		1m
	Preparing to Conduct a Chi-Square Test for Goodness of Fit	1. State the hypotheses for a chi-square test for goodness of fit.	48m
		2. Determine if the conditions for a chi-square test for goodness of fit are met.	
		3. Calculate the chi-square test statistic and P-value.	
		4. Calculate the chi-square P-value using technology.	
	Reading Lesson 12.1, Part 1		1h 31m
	Conducting a Chi-Square Test for Goodness of Fit	1. Perform a chi-square test for goodness of fit given a distribution of equally likely outcomes.	42m
		2. Perform a chi-square test for goodness of fit using technology.	
		3. Perform a follow-up analysis to investigate how an observed distribution differs from the hypothesized distribution.	
		4. Perform a chi-square test for goodness of fit given a distribution with claimed proportions.	
	Reading Lesson 12.1, Part 2		1h 31m
	Preparing to Conduct Inference for Two-Way Tables	1. Distinguish between a chi-square test for homogeneity and a chi-square test for association/independence.	34m
		2. Calculate the chi-square test statistic and P-value for inference for a two-way table.	
		3. Check the conditions for a chi-square test for inference for a two-way table.	
	Reading Lesson 12.2, Part 1		1h 31m
		1. Calculate the expected counts, chi-square test statistic, and P-value for a chi-square test for homogeneity using technology.	

Inference for Distributions and Relationships	Chi-Square Test for Homogeneity	2. Identify which observed counts were greater than expected and which observed counts were less than expected.	36m
		3. Carry out a chi-square test for homogeneity given computer output.	
		4. Carry out a chi-square test for homogeneity.	
		5. State appropriate hypotheses for a chi-square test for homogeneity.	
	Reading Lesson 12.2, Part 2		1h 31m
	Chi-Square Test of Association/Independence	1. Identify which observed counts were greater than expected and which observed counts were less than expected.	41m
		2. State appropriate hypotheses for a chi-square test for association/independence.	
		3. Carry out a chi-square test for association/independence.	
		4. Calculate the expected counts, chi-square test statistic, and P-value for a chi-square test for association/independence using technology.	
		5. Carry out a chi-square test for association/independence given computer output.	
	Reading Lesson 12.2, Part 3		1h 31m
	Preparing for Inference about Slope	1. Describe the shape, center, and/or variability of the sampling distribution of the regression slope.	48m
		2. Estimate the parameters for the intercept, slope, standard error of the slope, and/or the standard deviation of the residuals using computer output.	
		3. Check the conditions for inference about slope.	
	Reading Lesson 12.3, Part 1		1h 31m
	Confidence Intervals for Slope	1. Construct a confidence interval for slope using a graphing calculator.	28m
		2. Construct a confidence interval for slope using computer output.	
		3. Interpret a confidence interval for slope.	
	Reading Lesson 12.3, Part 2		1h 31m
	Significance Test for Slope	1. Carry out a significance test for slope using computer output.	33m
		2. Interpret the P-value of a significance test for slope.	
		3. Carry out a significance test for slope using a graphing calculator.	
	Reading Lesson 12.3, Part 3		1h 31m
	Unit 12 AP Practice Free-Response Questions		1h 30m
	Unit 12 Test	1. Carry out a significance test for slope using computer output.	40m
		2. Construct a confidence interval for slope using computer output.	
		3. Interpret a confidence interval for slope.	
		4. Check the conditions for inference about slope.	
		5. Construct a confidence interval for slope using a graphing calculator.	
		6. Interpret the P-value of a significance test for slope.	
		7. Carry out a significance test for slope using a graphing calculator.	
		8. Estimate the parameters for the intercept, slope, standard error of the slope, and/or the standard deviation of the residuals using computer output.	
		9. Calculate the chi-square test statistic and P-value.	
		10. Calculate the chi-square test statistic and P-value for inference for a two-way table.	
		11. State the hypotheses for a chi-square test for goodness of fit.	
		12. Perform a chi-square test for goodness of fit given a distribution with claimed proportions.	
		13. Describe the shape, center, and/or variability of the sampling distribution of the regression slope.	
		14. Determine if the conditions for a chi-square test for goodness of fit are met.	
		15. Carry out a chi-square test for association/independence.	
		16. State appropriate hypotheses for a chi-square test for association/independence.	
		17. Check the conditions for a chi-square test for inference for a two-way table.	
		18. State appropriate hypotheses for a chi-square test for homogeneity.	
		19. Perform a chi-square test for goodness of fit given a distribution of equally likely outcomes.	
		20. Distinguish between a chi-square test for homogeneity and a chi-square test for association/independence.	
		1. Evaluate a claim about a population parameter based upon a sampling distribution of a statistic.	
		2. Determine how the margin of error and width of the interval is affected by the confidence level and sample size.	
		3. Interpret the standard deviation of the sampling distribution of the sample proportion or the sampling distribution of the difference in two sample proportions.	

Cumulative Exam 2	Cumulative Exam	4. Describe the shape, mean, and/or standard deviation of the sampling distribution of the difference in two sample means. 5. Evaluate a claim about a population proportion based upon a calculated confidence interval. 6. Calculate a probability based upon the sampling distribution of p-hat. 7. Calculate the value of a point estimate and/or the margin of error of a given confidence interval. 8. Identify the sources of variability that are and are not accounted for by the margin of error in a confidence interval. 9. Construct a confidence interval for a difference in two population proportions. 10. Determine the shape, mean, and/or standard deviation of the sampling distribution of the difference in two sample proportions. 11. Evaluate a claim about a population parameter given a confidence interval. 12. Evaluate a claim about a difference in two population proportions based upon a calculated confidence interval. 13. Describe the variability of a sampling distribution as it relates to the size of the sample. 14. Calculate the point estimate and standard error of the sample proportion. 15. Construct a confidence interval for a population proportion using a graphing calculator. 16. Calculate the minimum sample size that is needed to construct a confidence interval for a population proportion with a given confidence level and a given margin 17. Construct a confidence interval for a difference in two population proportions using a graphing calculator. 18. Calculate a probability based upon the sampling distribution of p-hat1 - p-hat2. 19. Construct a confidence interval for a population proportion. 20. State appropriate hypotheses for performing a hypothesis test about a population mean. 21. Calculate the mean difference and the standard deviation of the differences for paired data. 22. Perform a chi-square test for goodness of fit given a distribution with claimed proportions. 23. Estimate a P-value based upon the results of a simulation. 24. Evaluate a claim about the difference in the population means based upon a calculated confidence interval. 25. Construct a confidence interval for a difference in two population means. 26. Evaluate a claim about a population mean based upon a calculated confidence interval. 27. Construct a confidence interval for a population mean. 28. Perform a chi-square test for goodness of fit given a distribution of equally likely outcomes. 29. Carry out a chi-square test for association/independence. 30. State the hypotheses for a chi-square test for goodness of fit. 31. Describe the power of a test and/or what influences the power of a test. 32. Conduct a hypothesis test about a difference in two population means. 33. Construct a confidence interval for a mean difference. 34. Conduct a hypothesis test about a mean difference. 35. Distinguish between a chi-square test for homogeneity and a chi-square test for association/independence. 36. Determine if the conditions required to compute a confidence interval for a difference in two population means are met. 37. State a conclusion about a hypothesis test for a population mean based upon a confidence interval. 38. Describe the power of a test and/or what influences the power of a test. 39. Describe and give a consequence of a Type I and Type II error. 40. Conduct a hypothesis test about a population proportion given computer output. 41. Calculate the chi-square test statistic and P-value. 42. Carry out a chi-square test for homogeneity. 43. Identify and give a consequence of a Type I and Type II error. 44. Determine if the conditions needed to carry out a hypothesis test about a population proportion are met. 45. Conduct a hypothesis test about a population proportion. 46. Conduct a hypothesis test about a difference in two population proportions. 47. Calculate the chi-square test statistic and P-value for inference for a two-way table. 48. Evaluate a claim about a population mean difference based upon a confidence interval. 49. State appropriate hypotheses for performing a hypothesis test about a population proportion. 50. Conduct a hypothesis test about a population mean.	1h 15m