

STA2023 Elementary Statistics  
Picturing the World  
Larson and Farber

Definitions and Theorems

2.1-40 Frequency Distribution	3.2-148 Independent and Dependent
2.1-40 Frequency	3.2-149 Multiplication Rule
2.1-40 Lower Class Limits	3.3-157 Mutually Exclusive
2.1-40 Upper Class Limits	3.3-158 The Addition Rule for Probabilities
2.1-40 Class Width	3.4-168 Permutation
2.1-40 Range	3.4-168 Permutation Formula
2.1-42 Midpoint	3.4-171 Combination Formula
2.1-42 Relative Frequency	4.1-190 Random Variable
2.1-42 Cumulative Frequency	4.1-190 Discrete and Continuous
2.1-44 Frequency Histogram	4.1-191 Discrete Probability Distribution
2.1-45 Frequency Polygon	4.1-194 Mean of a Discrete Random Variable
2.1-46 Frequency Histogram	4.1-196 Expected Value
2.1-46 Cumulative Frequency Graph or Ogive	4.2-201 Binomial Experiment
2.2-57 Dot Plot	4.2-201 Notation for Binomial Experiment
2.2-58 Pie Chart	4.2-203 Binomial Probability Formula
2.2-59 Pareto Chart	4.2-209 Population parameters of Binomial distribution
2.2-60 Scatter Plot	5.1-234 Normal Distribution
2.2-61 Time Series Chart	5.1-237 Standard Normal Distribution
2.3-67 Mean	5.1-237 Properties of the Standard Normal Distribution
2.3-68 Median	5.4-261 Sampling Distribution
2.3-69 Mode	5.4-261 Properties of Sampling Distributions of Sample Means
2.3-70 Outlier	5.4-263 The Central Limit Theorem
2.3-71 Weighted Mean	6.1-298 Point Estimate
2.3-72 Mean of a Frequency Distribution	6.1-299 Interval Estimate
2.3-73 Symmetric Distribution	6.1-299 Level of Confidence
2.3-73 Uniform Distribution	6.1-300 Margin of Error
2.3-73 Skewed Left Distribution	6.1-301 Confidence interval for a population mean
2.3-73 Skewed Right Distribution	6.1-304 Minimum Sample Size
2.4-82 Range	6.2-310 t-distribution
2.4-83 Deviation	6.3-320 Point Estimate for p
2.4-83 Population variance	6.3-321 Confidence interval for a population proportion
2.4-83 Population standard deviation	6.3-324 Minimum Sample size
2.4-85 Sample variance and standard deviation	7.1-348 Hypothesis test
2.4-88 Empirical Rule	7.1-349 Null Hypothesis
2.4-89 Chebychev's Theorem	7.1-349 Alternative Hypothesis
3.1-130 Probability Experiment	7.1-351 Errors Types
3.1-132 Fundamental counting principle	7.1-353 Level of Significance
3.1-134 Classic Probability	7.1-353 P-value
3.1-135 Empirical Probability	7.1-354 Left tailed test
3.1-136 Law of Large Numbers	
3.1-137 Range of Probability Rule	
3.1-138 Complement	
3.1-147 Conditional Probability	

7.1-354 Right tailed test  
7.1-354 Two tailed test  
7.1-356 Decision rule based on P-value  
7.1-357 Steps for Hypothesis Testing  
7.2-365 z-test for a Mean  
7.3-379 t-test for the mean  
7.4-388 z-test for a proportion  
8.1-418 Independent and dependent  
8.1-420 Null hypothesis  
8.1-420 Alternative hypothesis  
8.1-421 Two sample z-test  
9.1-470 Correlation  
9.1-473 Correlation Coefficient  
9.1-479 t-test for correlation coefficient

9.2-486 Linear Regression  
9.2-487 Equation of the Regression Line  
9.3-498 Total Variation  
9.3-498 Explained Variation  
9.3-468 Unexplained Variation  
9.3-499 Coefficient of Determination  
10.1-526 chi-square goodness-of-fit test  
10.1-527 observed frequency  
10.1-527 expected frequency  
10.1-528 chi-square goodness-of-fit test