Calculus 111, Chapter 7 Summary ~ things you should know

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Chapter 7 - Important concepts:

sample space

simple probability formula

empirical probability

relative frequency

addition-union principle

tree diagram

multiplication principle

permutations and combinations

- permutation and combination formulas

conditional probability

- independent events

Bayes' Theorem

Be able to:

define events from a sample space, given a description of an experiment

calculate probabilities for equally likely events

recognize and determine probabilities for events which are not equally likely

calculate probabilities, given an empirical experiment

construct a Venn diagram, given a description of a sample space

use a Venn diagram to determine probabilities

use the addition principle to calculate the probability for a given union of events

use a tree diagram to determine events and their probabilities

use the multiplication principle to calculate the probability for a given intersection of events

use the permutation and combination formulas to determine probabilities for a given situation

calculate conditional probabilities

use the two tests to determine whether or not two events are independent

use Bayes' Theorem to determine a conditional probability.

Review exercises from the text:

Chapter 7 Concept Review Questions, 2, 5

Chapter 7 Review Exercises, 1 – 28 (answers to odd-numbered problems are in the student solutions manual)