

Calculus 111, Chapter 6 Summary ~ things you should know

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Chapter 6 - Important concepts:

sets and set operations (union, intersection and complement)

number of elements in a set

addition-union principle

tree diagram

multiplication principle

permutations and combinations

permutation and combination formulas

Be able to:

identify the elements in a set from a given description

write a description of a set given a list of elements

list the elements in the union, intersection and/or complement of given sets

identify and work with subsets of a given set

use a Venn diagram to illustrate and answer questions about a set, union, intersection or complement

count the number of elements in a set

use the addition principle to determine the number of elements in a given union

use a tree diagram to determine the elements in a sample space

use the multiplication principle to determine the number of elements in a given intersection

given a description which includes number of elements in various sets, unions and intersections, fill in a Venn diagram and answer questions

use the multiplication principle to determine the number of possible outcomes for a given situation

determine whether a given situation involves permutation, combination, or both

use the permutation and combination formulas to determine the number of possible outcomes for a given situation

Review exercises from the text:

Chapter 6 Concept Review Questions, 1 – 6, 8

Chapter 6 Review Exercises, 1 – 47 (answers to odd-numbered problems are in the student solutions manual)