CSc 144 — Discrete Structures for Computer Science I (McCann)

Basic Counting Problem Flowchart

Have a counting problem you need to solve? First, remember that many counting problems are actually built of multiple sub-problems; you should start by looking for these 'problems within the problem.' Second, you need to solve the sub-problems, which will probably be basic counting problems found in this flowchart. The flowchart will try to help you decide which of the six basic counting problem solution techniques covered in class to use. Third, if there were sub-problems, you'll need to combine their solutions to produce the answer to the original problem. For this, the Multiplication and Addition Principles are often needed.

To help you keep the approaches straight, the flowchart names example problems from lecture that belong to the categories.

