

Combinations and the Binomial Theorem

Specific Expectations	Section
Use Venn diagrams as a tool for organizing information in counting problems.	5.1
Solve introductory counting problems involving the additive and multiplicative counting principles.	5.1, 5.2, 5.3
Express answers to permutation and combination problems, using standard combinatorial symbols.	5.1, 5.2, 5.3
Evaluate expressions involving factorial notation, using appropriate methods.	5.2, 5.3
Solve problems, using techniques for counting combinations.	5.2, 5.3
Identify patterns in Pascal's triangle and relate the terms of Pascal's triangle to values of $\binom{n}{r}$, to the expansion of a binomial, and to the solution of related problems.	5.4
Communicate clearly, coherently, and precisely the solutions to counting problems.	5.1, 5.2, 5.3, 5.4