

Interfaces

- Definition
- Interfaces as a type
- Polymorphism
- Relationship to Abstract Classes
- Inheritance
- Comparable
- instanceof

Counting

- Product Rule
- Sum Rule
- Inclusion / Exclusion
- Pigeonhole

Permutations / Combinations

- Calculate permutations, r-permutations
- Calculate combinations, r-combinations
- Use with Counting principles
 - Product, Sum
 - Inclusion/Exclusion, Pigeonhole
- Recognize scenarios

Induction

- Be able to perform mathematical induction proofs
 - Equality
 - Inequality

Programs

- Binary Search
- IFoo
- Spock's Dilemma