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- Gray codes
  - Disk encoding problem
  - Enumerating Gray codes
  - Binary code to Gray code conversion
- ASCII
- State encoding
  - N states require at least $\lceil \log_2 N \rceil$ bits
    - The right choice can simply the circuit
  - M out of N codes
    - M ones within N bits
    - Common examples
      - 1 of N
      - Bar code
- Boolean N cube
  - Basis of the Hypercube architecture
  - Used in Karnaugh maps
- Error detection and correction
  - Minimal distance between code words
  - Parity – simple error detection
  - Error correction
- Serial transmission
  - Need for three signals
    - Bit signal
    - Clock signal
    - Synchronization signals
  - Real world requirements
    - Frequent transitions
    - DC balance
  - Common encoding schemes (p. 70)