Number Representations
Binary, Decimal, Hex, ...

Base 2, 8, 10, 16

- All digital computer information is stored in 1's and 0's
- Base 2 uses 0 and 1 (binary)
  Base 8 uses digits 0-7 (octal)
  Base 10 uses digits 0-9 (decimal)
  Base 16 (hex) uses 0-9, a-f (hexadecimal, or "hex")
- Base 2 is important because all integers are stored in base 2
- Base 10 is important because that's our standard
- Base 16 (hex) is commonly used. Data in a (8-bit) byte can be represented by two hex digits, e.g.
  - 0xff
  - 0x74
- It's useful to know how to convert numbers from one base to another (e.g. from decimal to binary, from binary to decimal)