Regular Expressions

- Language for composing complex patterns from simpler ones.
  - An individual character is a regex.
  - Union: If e_1 and e_2 are regexes, then (e_1 / e_2) is a regex
  - Concatenation: If e_1 and e_2 are regexes, then $e_1 e_2$ is a regex
  - Repetition (Kleene closure): If e_1 is a regex, then e_1* is a regex

Enhanced Regex's (Perl)

- Special terms for common sets of characters, such as alphabetic or numeric or general "wildcard".
- Special repetition operator (+) for 1 or more occurrences.
- Special optional operator (?) for 0 or 1 occurrences.
- Special repetition operator for specific range of number of occurrences: {min,max}.
  - A{1,5} One to five A's.
  - A{5,}   Five or more A's
  - A{5}   Exactly five A's

Perl Regex's

- Character classes
  - \w (word char) Any alpha-numeric (not: \W)
  - \d (digit char) Any digit (not: \D)
  - \s (space char) Any whitespace (not: \S)
  - . (wildcard) Anything
- Anchor points:
  - \b (boundary) Word boundary
  - ^ Beginning of string
  - $ End of string