* Sub program statements
  + We can give a section of code a name and use that name as a statement in another part of the program
  + When the name is encountered, the processing in the other part of the program halts while the name code is executed
  + Function always returns a value
  + Sub-function or subroutine does not return a value
* Parameters
  + Identifiers listed in parentheses beside the subprogram declaration
  + Sometimes called formal parameters
* Arguments
  + Identifiers listed in the parentheses on the subprogram call
  + sometimes called the actual parameters
* recursion
  + the ability of a subprogram to call itself
  + does first in, last out
* base case
  + the case to which we have an answer
* general case
  + case that expresses the solution in terms of a call to itself with a smaller version of the problem
* factorial
  + base case
    - factorial (0) = 1
  + general case
    - factorial (N) = N \* factorial (N -1 )
* quick sort
  + each attempt to sort the stack of data elements, the stack is divided at splitting value, splitVal, and the same approach is used to sort each of the smaller stacks (a smaller case)
* abstraction
  + a model of a complex system that includes only the details essential to the view
  + abstraction types
    - data
      * separation of the logical view of data from their implementation
    - procedural
      * separation of the logical view of actions from their implementation
    - control
      * separation of the logical view of a control structure from its implementation
* information hiding
  + the practice of hiding the details of a module with the goal of controlling access to it
* identifiers
  + names given to data and actions by which
    - we access the data
    - execute the actions