

## EECS10 Discussion Week7

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## Course Administration

- Midterm Exam 2 is coming.
  - Multiple choices
  - About 40 questions
  - Mainly focus on the stuff after midterm 1, but should cover all the things discussed since lecture 1.

## Functions

- **Scope of an identifier**
  - Portion of the program where the identifier can be referenced
  - aka. accessibility, visibility
- **Scope rules**
  - **Global variables: file scope**
    - Declaration outside any function (at global level)
    - Scope in entire source file after declaration
  - **Function parameters: function scope**
    - Declaration in function parameter list
    - Scope limited to this function body (entirely)
  - **Local variables: block scope**
    - Declaration inside a compound statement (i.e. function body)
    - Scope limited to this compound statement block (entirely)

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## Arrays

- **Composite data type**
  - Type is an array of a sub-type (e.g. array of **int**)
  - Fixed number of elements
  - Array size is fixed at time of definition (e.g. 100 elements)
  - Element access by index (aka. subscript)
  - Element-access operator: array[index] (e.g. A[42])
  - Array indexing starts counting from 0.
  - for loops are often very helpful for array indexing.
  - Multi-dimensional Arrays: Array of an array.
- **Passing arguments to functions**
  - Pass by value
  - Pass by reference

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