

- `int main(void)`
 - only one main function
 - `void` - no arguments
- curly brace - `{ ... }`
 - group statements into blocks
 - blocks have local scope
 - scope tells us where variable exists, or is defined
 - scope rules:
 - each `{ }` is a new scope
 - local variables can be defined in each scope and can have any type along with any legal name
 - if they have the same name as a variable in an outer scope, they hide that variable
- loops
 - top-test loops
 - `while(statement)`
 - `for(arg1;arg2;arg3)`
 - bottom-test loop
 - `do-while`
- conditionals
 - `if ()`
 - `else ()`
 - switch statement (*`switch(value)`*) - selects cases that correspond to a value
- `goto` - jumps to a label (*`labelname:`*)
- commands
 - `printf()`
 - function in standard library
 - `%` - format string
- variables - must be declared (specifying its type)
- scalar types - `char`, `int`, `float`, `double`
- Boolean algebra
 - true and false (1 and 0)
 - and (`&&`), or (`||`), and not/negation (`!`)
- break statement - breaks out of loop or terminates one switch statement
- continue statement - continues to the next iteration of a loop'
- short circuit evaluation - allows expression to be determined ASAP
- functions - provides easy way of running a series of code multiple times; need to define prototypes at beginning of file or in header files
 - can return void, scalar values, points, and structs; cannot return arrays
 - formal parameters - used in body of function
 - actual parameters - passed to function