Quick Recap

• Constants
  • Macros -> #define MAX_SIZE 100
  • Const Keyword -> const int MAX_SIZE = 100; //have to assign value here
  • Cannot be changed later

• Precedence of Operators
  • Function call
  • *, /, %
  • +, -
  • Can be changed with parentheses
Quick Recap

• Integer Division -> dividing two ints gets an int
• Float Division -> dividing a float with anything else gets a float
• Type Casting
  • Temporarily changing a variable to act as another type
  • Common
    • Int to char
    • Int to float
  • Ex: int a = 5;
      int b = 6;
      cout << (float) a/b << endl;
Some Notes on Size

• Size is finite in computers
  • Ints = 4 bytes
  • Char = 1 byte
  • Floats = 4 bytes
  • Doubles = 4 bytes
  • Bool = 1 byte
• Byte = 8 bits
• Signed and Unsigned impact size
  • Signed = positive and negative, Unsigned = positive
• What is the max value in an unsigned system?
• What happens if we add one to that value?
Decisions

• When do we make decisions?
• Ex:
How do we represent decisions?
How do we code decisions? -> Conditionals

if (some condition) {
    //then execute this code
}

elif (the next condition to check) {
    //this one does not have to exist or there can be many
}

else {
    //this is the default, it does not need to be included
}
Demo