Old Business

- Assignment 7 due today
- Test 2 is Friday
New Business

- Grades are online
  - Link on Website

- No Test 3

- 2 more homeworks (1 C++ and a final)
  - Details to come
Test 2 Review

- Same format as Test 1.
- Covers all aspects of C
Topics

- User defined types, including structs
- File I/O
- Recursive programming.

- Anything else I can think of.
Function Overloading

- Create multiple functions with the same name
- Functions can’t have same parameters
- May have different return types
- All functions must be prototyped
overloading

void print(int i) {}

void print(double i) {}

void print(char i) {}
overloading

- Execution based on what parameters you give.

```c
int j, char a, double p;
print(j); print(a); print(p);
```

- Correct function is chosen.
classes

- Basic Object in C++

- Bundles fields with functions

- “Struct with methods”

- data & functions: default to private
Basic class

class my_class {
    char c;
    public :
    void setChar(char);
    char getChar();
};

Creates a class with 1 private field and 2 public functions.
Basic skeleton

class class-name {
    private data and functions
    public:
    public data and functions
} object name list;
Class creation

- Definition holds field names and function prototypes.

- Functions are usually implemented somewhere else.

- Usually in same file.
Function implementation

char my_class::getChar(){
    return c;
}

void my_class::setChar(char d){
    C = d;
}
Using classes

```cpp
int main() {
    my_class foo;

    foo.setChar('b');
    cout << foo.getChar();
    return 0;
}
```
access

- use the dot operator for actual class objects (just like structs);

- We’ll talk about pointers later.
structs & classes

- structs == classes

- In structs: default public

- in classes: default private;

- Can have functions.
structs vs classes

- better to use structs for POD
- and classes for objects.