Building Programs Using Classes

- The Problem
- Computer Colors
- Top Down Design, Problem Abstractions

The Problem

- Write a program to draw a sequence of red, green, and blue strips with prescribed color values and a strip which shows the color that results from combining the red, green, and blue values with their prescribed intensities.
- The program should read in the width and height of each strip, the red, green, and blue intensities, and the number of times the four color strips should be repeated.

The Class

- gplot.h
- cgraph.cpp
- colorplot(int, int, int, int, int);
- colorplot(int x, int y, int *r, int *g, int *b) works the same as
  colorplot(int x, int y, int r[],int g[], int b);

Program Construction Part I

- Break the program down into a sequence of natural* operations involving either
  - A sequence of natural operations repeated one after the other that are required to complete the problem.
  - A repeated natural operation.
  - A choice of alternatives among natural operation.

* A natural operation is a task that you can refer to by a short meaningful phrase like “read in the data.”

Program Construction Part II-N

- Break the natural operations into a sequence
  - Other natural operations.
  - A relatively short code segment
- Lab Exercise: Apply Parts I and II+ this to the problem above.

Homework
(due November 19 before class)

- Write a program to draw a sequence of red, green, and blue strips with prescribed color values and a strip which shows the color that results from combining the red, green, and blue values with their prescribed intensities.
- The program should read in the width and height of each strip, the red, green, and blue intensities, and the number of times the four color strips should be repeated.