Admin

For this week:

- lectures: variables, if, double, functions
- VLab: don't use the web one, use via VNC
- make sure any email forwarding works ok

Variables

Variables are objects used in computation

Each variable has

- a name e.g. x, y, i, j, sum, myValue, …
- a type e.g. char, int, double, array, struct, …
- a current value e.g. 1, 3.14, 'a', "hello"

Variables (cont)

Variables are *declared* by specifying

- the type, the name, an initial value (optional)

E.g. int i; char ch; int x = 0; double y = 2.5;

If no initial value is given, assume random value

Integers

- often need to deal with integer values
- C provides the int type
- e.g. int count = 0; // how many …
- operations on ints: arithmetic, comparison

Integers (cont)

- reading ints: scanf("%d", &x);
- writing ints: printf("%d", x);
- %d can be qualified e.g. %10d, %4d
- %*W*d … *W* = width
- if number shorter than *W*, blank pad on left
- if number longer than *W*, write in full, no blank padding

Writing C Programs (cont)

Another problem to solve in C:

- add two numbers
  - print a message asking for the first number
  - read the first number
  - print a message asking for the second number
  - read the second number
  - add the numbers and print the sum on a line by itself