Numbers and Characters

C has multiple ways to store integers. All can only store integers within some range. If you exceed that range, C will automatically wrap around. If you are only storing nonnegative numbers, you can use **unsigned int**. If needing to store larger numbers, you can use **long int**.

C has multiple ways to store real numbers (such as 3.14). The most common now is **double**. There is also **float** and **long double**.

If you try to store one type in another type, C will give it its best shot.

For **scanf**, one placeholder is **%f**.

For **printf**, you can add formatting. So **%16.4f** means: in a field of 16 places (padded with blanks in front if necessary), print the number formatted to 4 decimal places.

A letter or digit can be stored in a **char** variable. A character is like a string except surrounded by single quotes. Note that a **char** is a character and an integer simultaneously: the following code prints out A,65

```c
char myChar = 'A'; printf( "%c,%d", myChar, myChar );
```