**Introduction to C**

## C Syntax

#include <stdio.h>  
int main ()  
{  
 int a = 5, b = 10; *// declare integers and assigning values* int c; *// declare integer* c = a + b; *// assign value* printf("c"); *// this will literally print 'c'  
 // it is the format used to print strings* printf("%d", c); *// prints '15'* printf("my number is %d", c) *// prints 'my number is 15'* return 0; *// ends main function*}

C

## Data Types

int integers %d

char

float %f

double %lf

a = 5, b = 3

a = a + b a += b addition

a = 8 a = 8

a = a % b a %= b remainder

a = 2 a = 2

a = a / b a /= b division

a = 1 a = 1 a cannot be a float since it was declared an integer

double d = 3.97777

printf("%lf", d) - prints 3.97777

printf("%2lf", d) - prints 3.97

int a, b;

scanf (("%d %d", &a, &b)num); - takes input from user and assigns them

int res = a + b;

printf ("%d", res);

## Switching Values

int a = 5, b = 10;

Method 1:

c = a;

a = b;

b = c;

print (a, b) - prints 10 5

Method 2:

a = a + b;

b = a – b;

a = a – b;

print (a, b) - prints 10 5