CS 162
Intro to CS II

Linked Lists, Sorting, and Big O
Odds and Ends...

• Engineering Expo Friday
  – Design or Quiz (write on paper)
  – Turn it in during recitation next week

• Assignment #4 due Sunday
  – You better have a makefile
  – You better not have friend functions

• Questions?
Linked Lists

- What are they?
- How do they differ from arrays?
Demo...

```c
#include <stdio.h>  // included for printf/scanf
#include <stdlib.h> // include for NULL, malloc/free

struct node {
    int val;
    struct node *next;
};

int main () {
    struct node *head=NULL;
    head=(struct node *) malloc(sizeof(struct node));
    printf("Enter a num 1: 
");
    scanf("%d", & (head->val));
    head->next=NULL;
    printf("The 1st num was %d!!!\n\n\n", head->val);

    head->next=(struct node *) malloc(sizeof(struct node));
    printf("Enter a num 2: 
");
    scanf("%d", & (head->next->val));
    head->next->next=NULL;
    printf("The 2nd num was %d!!!\n\n\n", head->next->val);

    free (head->next);
    free (head);
    return 0;
}
```