LAB 3 Solutions

Exercise Total Expense

```
#include <stdio.h>

int main() {
int expense = 0;
int sum = 0;
scanf("%d", &expense);
while(expense != -1){
sum += expense;
scanf("%d", &expense);
}
printf("%d\n", sum);

return 0;
}
```

Exercise Swap Name

```
#include <stdio.h>
int main() {
   int num,i,n;
   char first_name[20];
   char last_name[20];
   scanf("%d",&num);
   for(i=0;i<num;i++){
   scanf("%s",first_name);
   scanf("%s",last_name);
   printf("%s %s\n",last_name,first_name);
   }
  return 0;
}
```

Exercise Metric Conversions

```
#include <stdio.h>

// add two more prototypes
double metersToFeet(double);
double gramsToPounds(double);
double CelsiusToFahrenheit(double);

// complete the main function to read input, call functions, and display output
int main()
{
   int time, i;
   double metric;
   char unit;
   scanf("%d", &time);
   for(i=0;i<time;i++){
      scanf("%lf %c", &metric, &unit);
      if(unit=='m'){
         printf("%.2lf ft\n", metersToFeet(metric));
      }else if(unit=='g'){
         printf("%.2lf lbs\n", gramsToPounds(metric));
      }else{
         printf("%.2lf f\n", CelsiusToFahrenheit(metric));
      }
   }
   return 0;
}

// complete the function below
double metersToFeet(double meters) {
    return 3.2808*meters;
   }

// and add two more functions
double gramsToPounds(double grams){
   return 0.002205*grams;
}
```

```
double CelsiusToFahrenheit(double Celsius){
    return 32 + 1.8*Celsius;
}
```

Exercise Fibonacci Sequence

```
#include <stdio.h>
int fibo(int n)
{
    if(n==0 || n==1){
        return 1;
    }else{
        return fibo(n-1)+fibo(n-2);
    }
}
int main(){
    int n;
    scanf("%d",&n);
    printf("%d\n",fibo(n));

    return 0;
}
```