Cell Phone Number Code

```c
#include<stdio.h>

int main(void){
    //defining variables
    long long int phoneNum;
    int areaCode;
    int exchangeCode;
    int userNum;
    int test;


    //asks for user input of phone number
    printf("Please enter the 10 digits phone number: ");
    scanf("%lld",&phoneNum);

    //correctly segments the phone number its parts
    areaCode = (phoneNum / 10000000);
    exchangeCode = (phoneNum / 10000) % 1000;
    userNum = phoneNum % 10000;

    //prints what the area and exchange code as well as the user number is
    printf("\n\nThe area code is: %d\n",areaCode);
    printf("The exchange code is: %d\n",exchangeCode);
    printf("The user number is: %d\n",userNum);


    return 0;

}
```

Cell Phone Number Sample Input/Output

```
zhong@JJ-Laptop /cygdrive/c/se185
$ gcc phoneNum.c -o phoneNum

zhong@JJ-Laptop /cygdrive/c/se185
$ ./phoneNum
Please enter the 10 digits phone number: 5152946323


The area code is: 515
The exchange code is: 294
The user number is: 6323

zhong@JJ-Laptop /cygdrive/c/se185
$
```

Distance Problem Source Code

```c
#include<stdio.h>
#include<math.h>

int main(void){

//creating a really simple function so that I don't have to retype the distance formula
double distance(double x1,double x2,double y1,double y2){
double result;
result = sqrt(pow(x2-x1,2)+pow(y2-y1,2));

return result;
}

//defining all the necessary variable
double dist;
double mikeX = 22.05;
double mikeY = 85.10;
double maryX = 43.25;
double maryY = 9.80;
double garyX = 2.55;
double garyY = 72.86;
double loganX = 15.15;
double loganY = 40.40;
double schoolX = 15.55;
double schoolY = 55.15;

//printing all the calculated values with the right format
printf("The E distance for Mike is: %lf\n",distance(mikeX,schoolX,mikeY,schoolY));
printf("The E distance for Mary is: %lf\n",distance(maryX,schoolX,maryY,schoolY));
printf("The E distance for Gary is: %lf\n",distance(garyX,schoolX,garyY,schoolY));
printf("The E distance for Logan is: %lf\n",distance(loganX,schoolX,loganY,schoolY));
return 0;
}
```

Distance Problem Sample Output

```
zhong@JJ-Laptop /cygdrive/c/se185
$ gcc distance.c -o distance

zhong@JJ-Laptop /cygdrive/c/se185
$ ./distance
The E distance for Mike is: 30.647227
The E distance for Mary is: 53.140498
The E distance for Gary is: 21.969162
The E distance for Logan is: 14.755423

zhong@JJ-Laptop /cygdrive/c/se185
$
```