* Pseudo random generator using **rand()** function.
* We’re investigating distribution of number by **rand()** function.
* Function to use **randon\_number = (int)(10.0\*rand() / (RAND\_MAX + 1.0));**

CODE

Name: randTest.c

Requirement: Uses function above to generate every number to use in the tests. If ‘ranTest.out 1’ is typed, Test one is ran, if ‘rantTest.out 2’ is typed the second test is run.

Tests:

* Odd-Even Test
* Coupon collector’s Test
* Extended coupon collector’s Test
* Maximum Test
* Maximum Test using a file

Odd-Even Test: Show percentage of odd and even digits from 10,000 digits generated.

Coupon collector’s Test:Count how many digits have to be generated to produce at least one each of each possible digits.

Extended coupon collector’s Test: count how times it takes for 2 of each digits to appear.

Maximum Test: a 3 number set, generated 1000 times. Show percentage of sets that the middle number is higher than the first and last.

Maximum Test using a file: Generate 3000 random digits and save them in a text file,with every digit in a single line and separated by spaces. Then Repeat the **maximum test** by reading the diigits from the file.

if(randy==1){//

values[i]==1;//

}else if(randy==2){

values[i]==2;

}else if(randy==3){

values[i]==3;

}else if(randy==4){

values[i]==4;

}else if(randy==5){

values[i]==5;

}else if(randy==6){

values[i]==6;

}else if(randy==7){

values[i]==7;

}else if(randy==8){

values[i]==8;

}else if(randy==9){

values[i]==9;

}