

Ashely loves numbers made up of unique digits. She is less enchanted with numbers that have repeating digits. Given a range of integers, determine how many numbers she loves.

For example the lower bound $n=80$ and the upper bound $m=120$. Both are inclusive, so there are $120-79 = 41$ values in the range. Numbers she loves are green. Other are red. Two columns to right are the love/hate counts per row.

80	81	82	83	84	85	86	87	88	89	9	1
90	91	92	93	94	95	96	97	98	99	9	1
100	101	102	103	104	105	106	107	108	109	9	2
110	111	112	113	114	115	116	117	118	119	0	10
120										1	0

There are 27 numbers she loves and 14 other numbers she hate

Function Description

Complete the function countNumbers in the editor below

```
void countNumbers(int arr_rows, int arr_columns, int **arr)
{

}
```

Answer

```
#include "stdio.h"
void countNumbers(int arr_rows,int arr_columns, int **arr);
int count(int);
main()
{
    int x[5][10]={
        80, 81, 82, 83, 84, 85, 86, 87, 88, 89,
        90 ,91 ,92 ,93 ,94 ,95 ,96 ,97 ,98, 99,
        100 ,101 ,102 ,103 ,104 ,105 ,106 ,107, 108, 109,
        110 ,111 ,112, 113 ,114 ,115 ,116 ,117 ,118 ,119,
        120, 0 ,0 ,0 ,0 ,0 ,0 ,0 ,0 ,0
    };

    int i,j;
    countNumbers(5,10,(int**)x);
}
void countNumbers(int arr_rows,int arr_columns, int **arr)
{
    int i,j,s=0,c,n;
    for(i=0;i<arr_rows;i++)
    {
        for(j=0;j<arr_columns;j++)
        {
            n=((int*)arr+i*arr_columns+j));
            if(n!=0)
                s=s+count(n);
        }
    }
    printf("total number she loves %d , Hate is  %d\n",(120-79)-s, s);
}

int count(int n)
{
    int i=0,j,k,c=1;
    int x[10];
    while(n>0)
    {
        x[i]=n%10;
        n=n/10;
```

```
        i++;
    }
    for(j=0;j<i;j++)
    {
        for(k=j+1;k<i;k++)
        {
            if(x[j]==x[k])
            {
                c++;
            }
        }
    }
    if(c>1)
        return 1;
    else
        return 0;
}
```