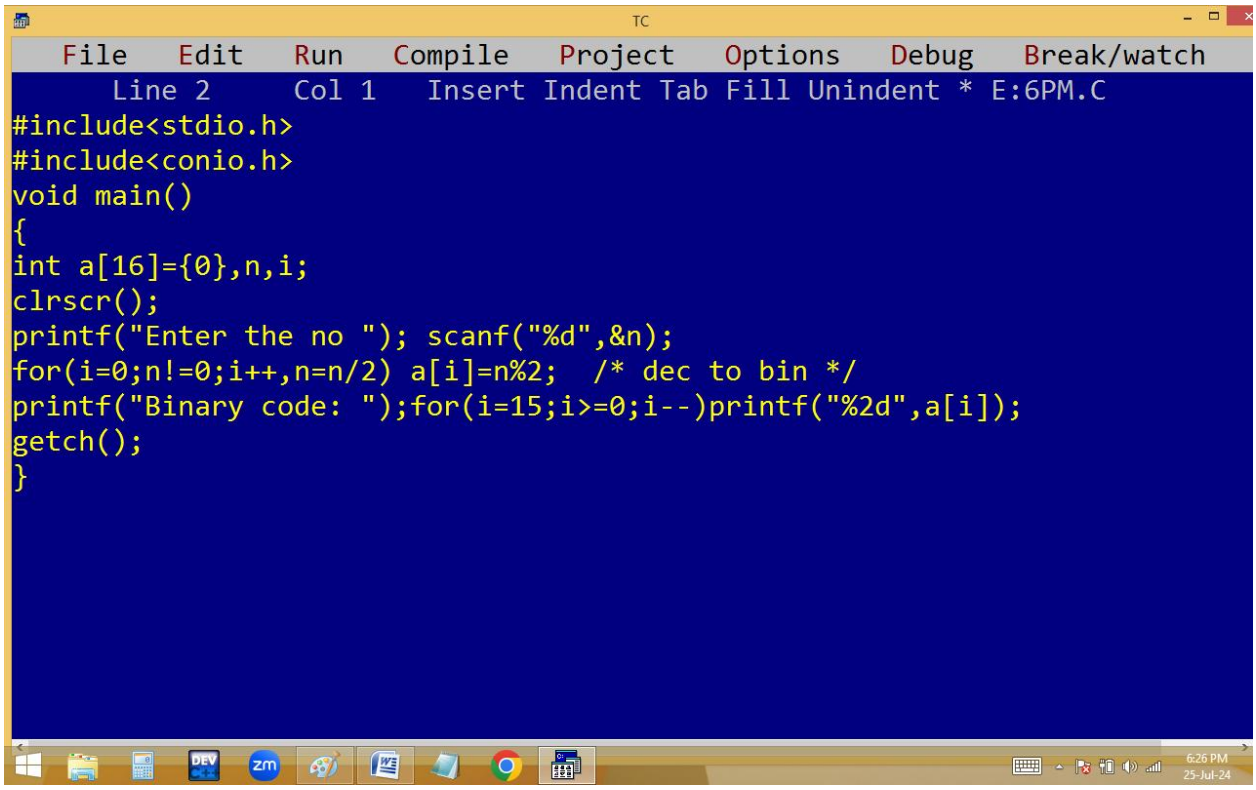
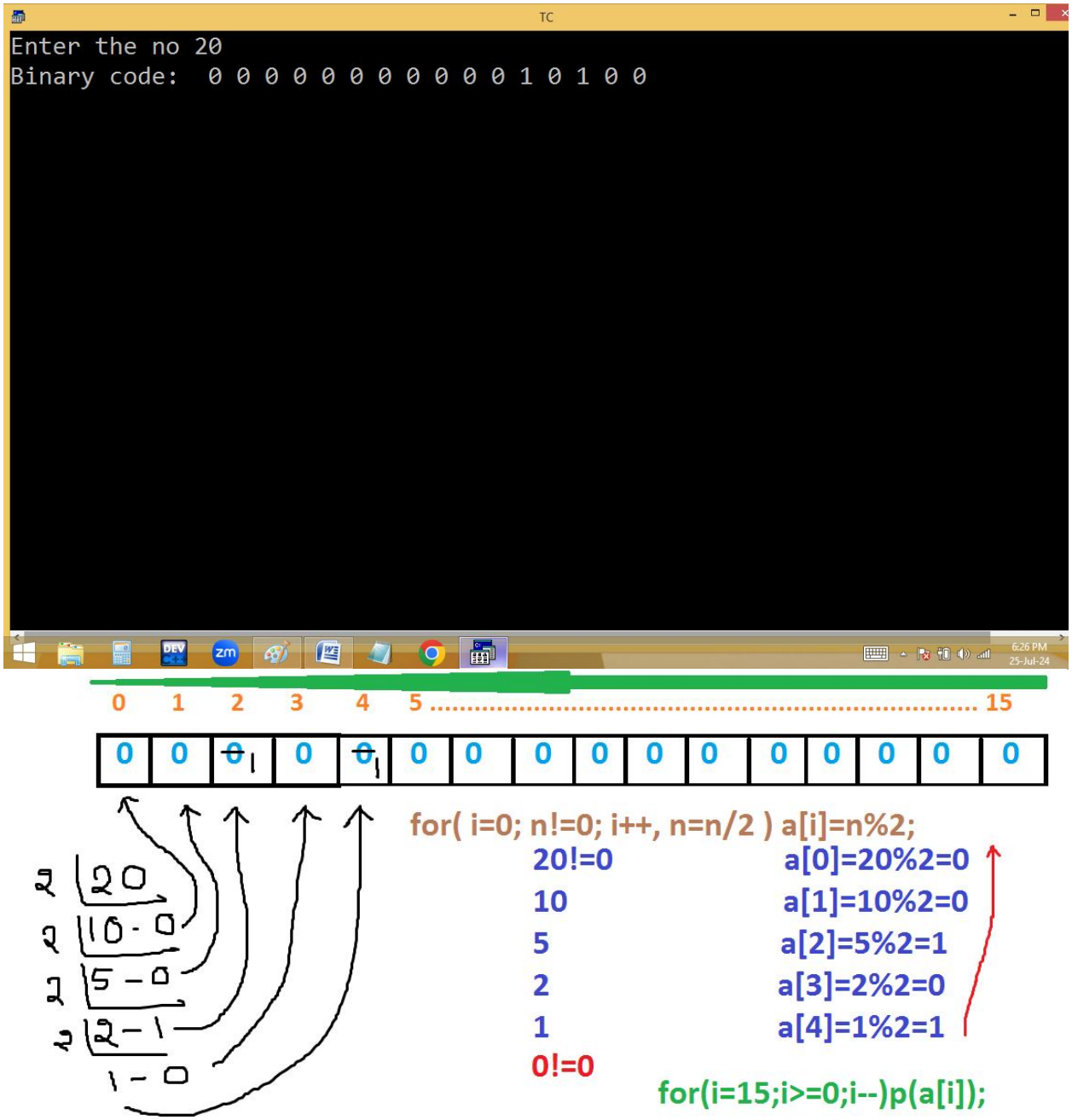
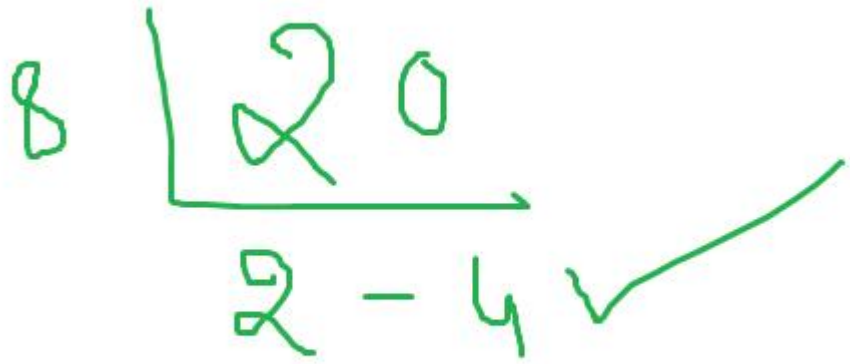
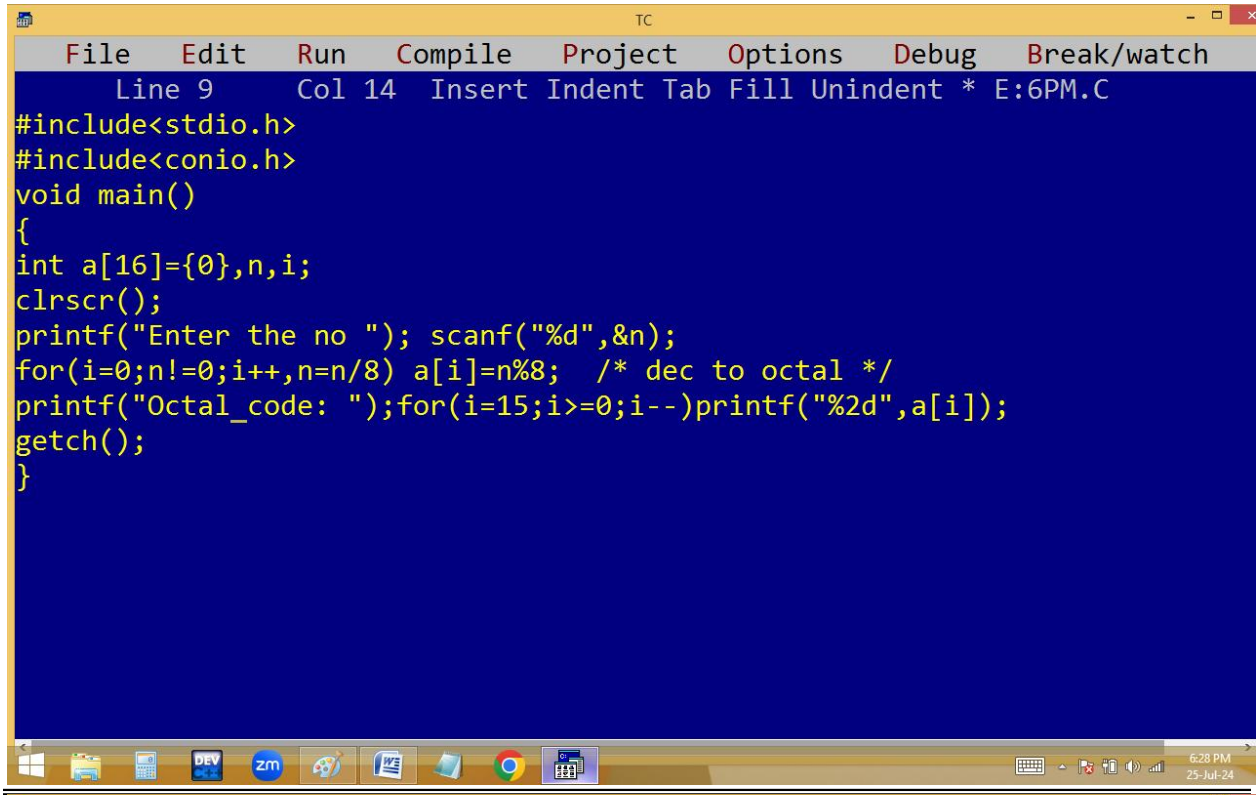
Decimal to binary conversion:

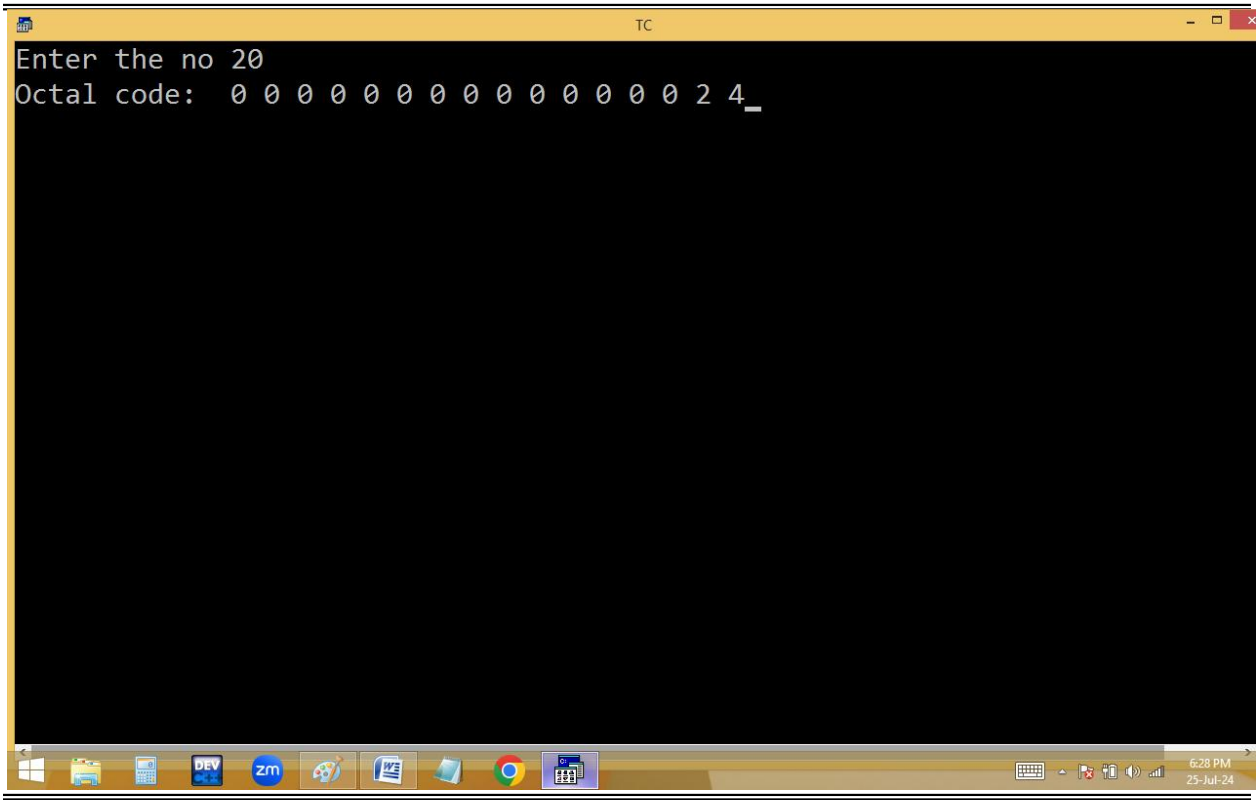




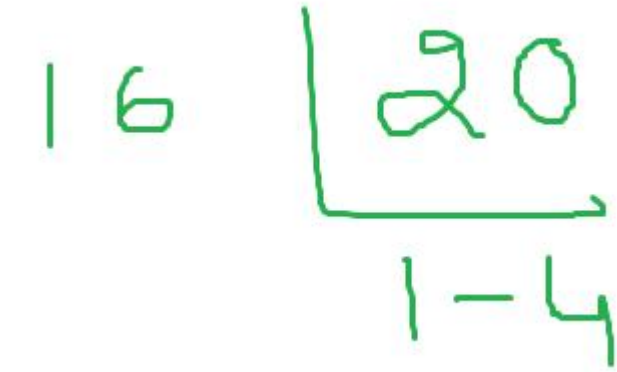
Decimal to Octal:

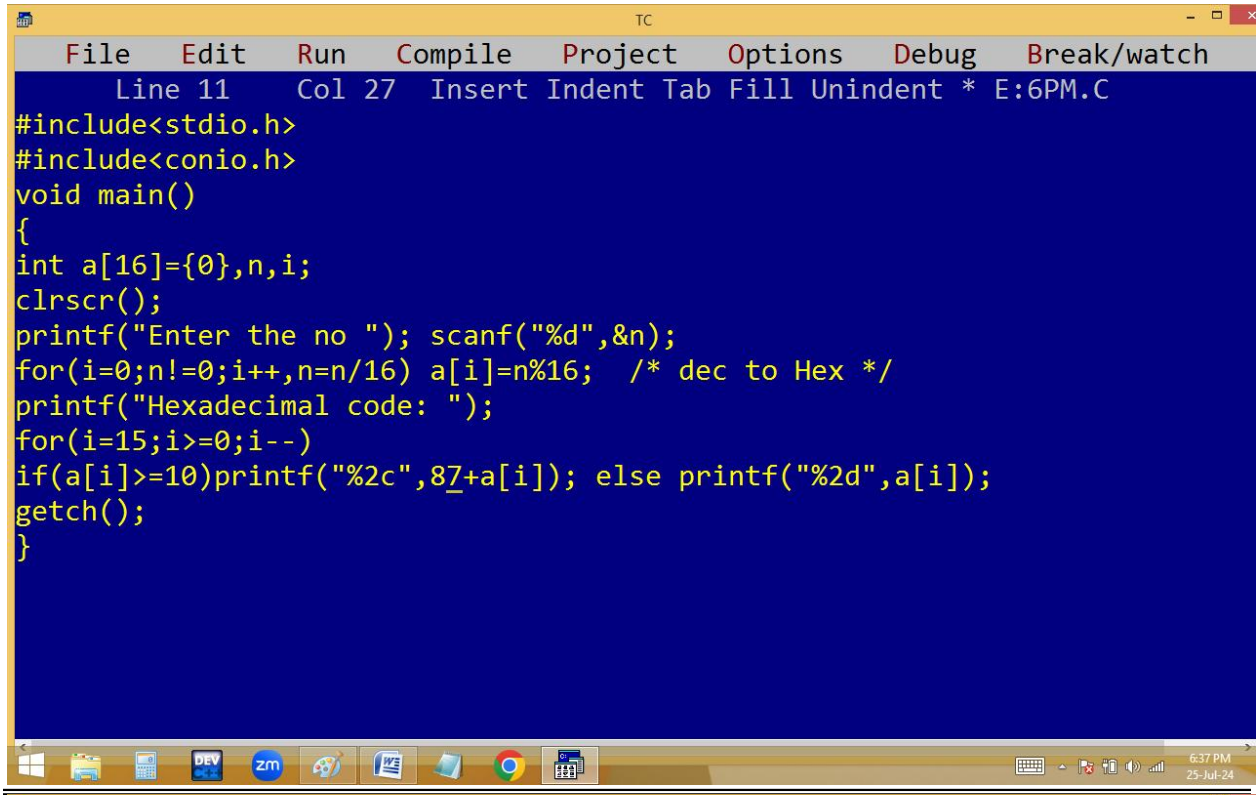

8
20
2 - 4

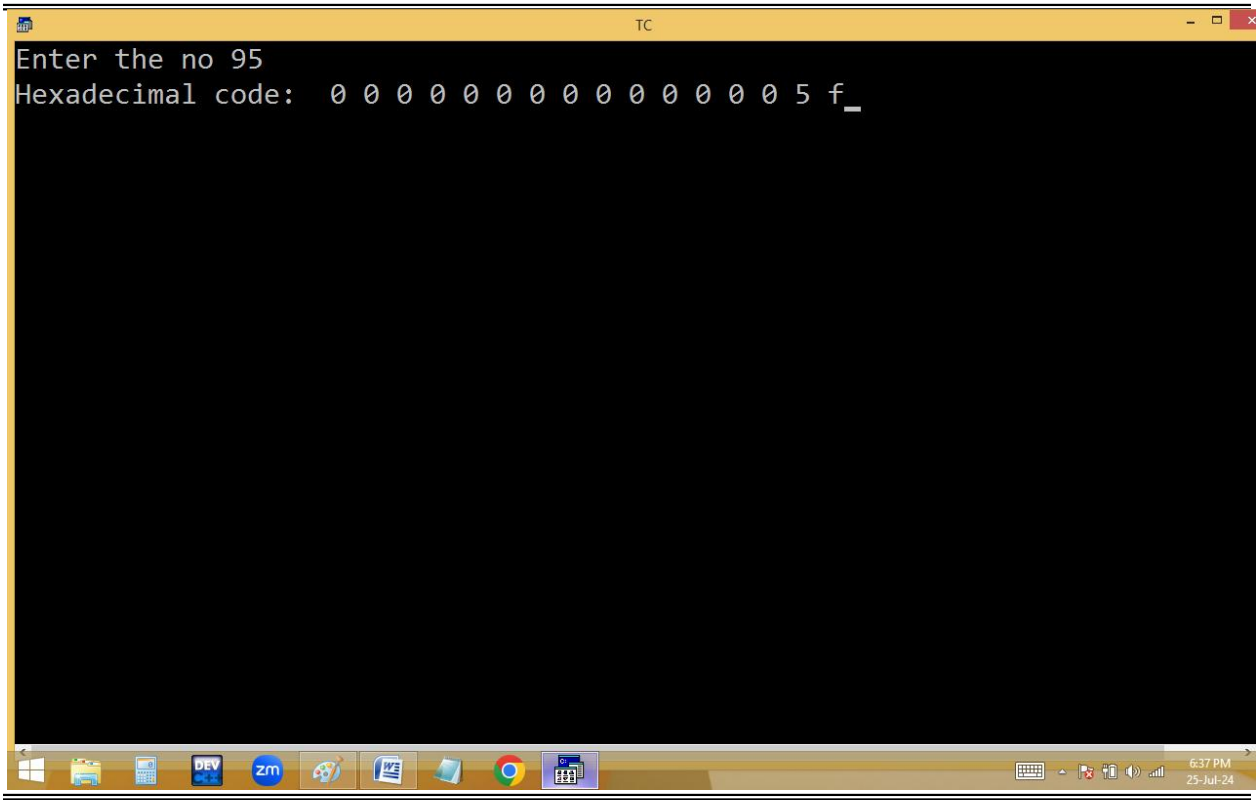

TC
File Edit Run Compile Project Options Debug Break/watch
Line 9 Col 14 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[16]={0},n,i;
clrscr();
printf("Enter the no "); scanf("%d",&n);
for(i=0;n!=0;i++,n=n/8) a[i]=n%8; /* dec to octal */
printf("Octal_code: ");for(i=15;i>=0;i--)printf("%2d",a[i]);
getch();
}

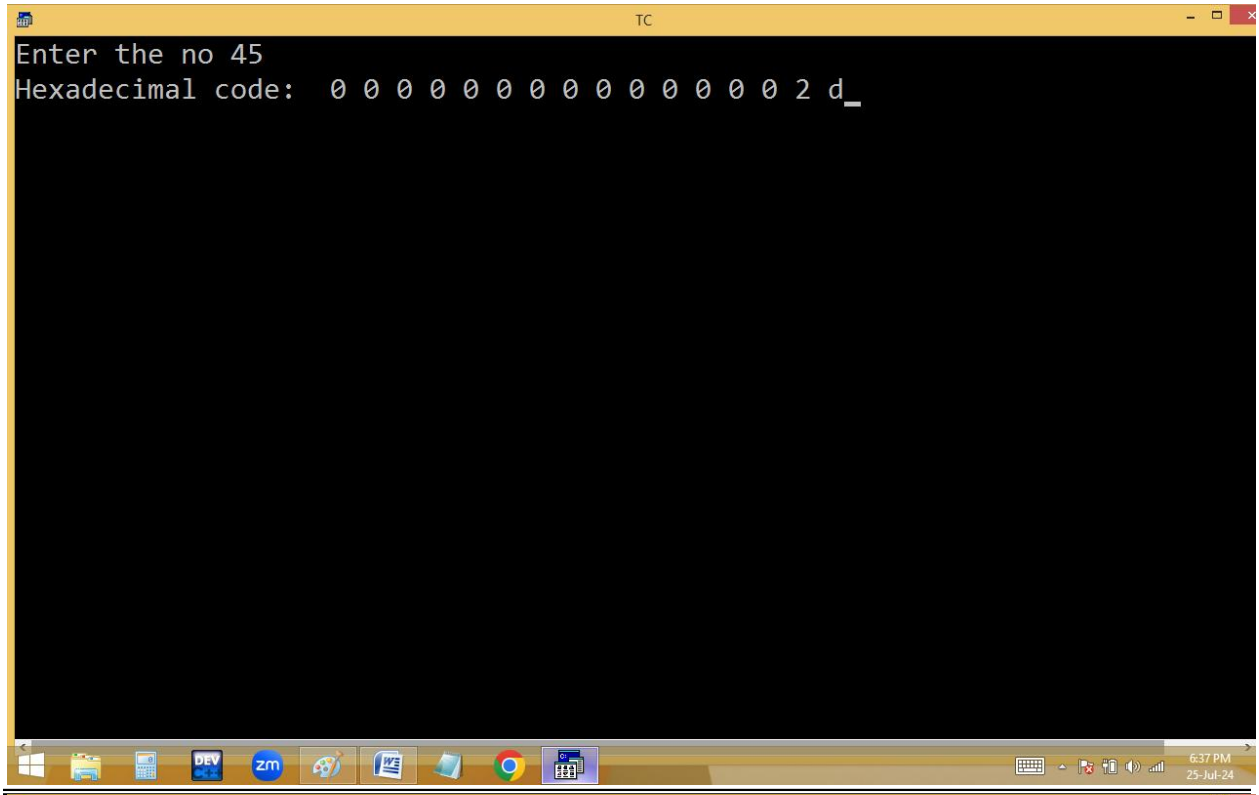

TC
Enter the no 20
Octal code: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 4

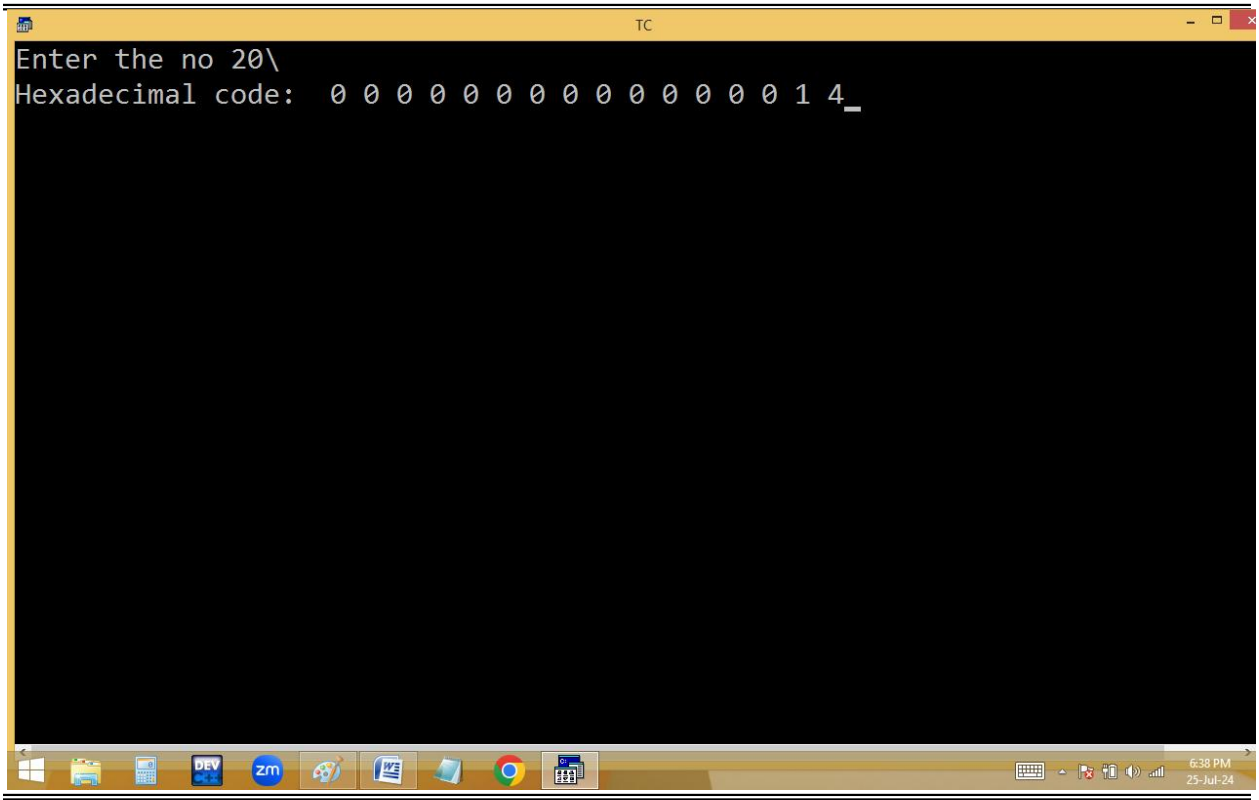
Decimal to hexadecimal:




TC
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 27 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[16]={0},n,i;
clrscr();
printf("Enter the no "); scanf("%d",&n);
for(i=0;n!=0;i++,n=n/16) a[i]=n%16; /* dec to Hex */
printf("Hexadecimal code: ");
for(i=15;i>=0;i--)
if(a[i]>=10)printf("%2c",87+a[i]); else printf("%2d",a[i]);
getch();
}

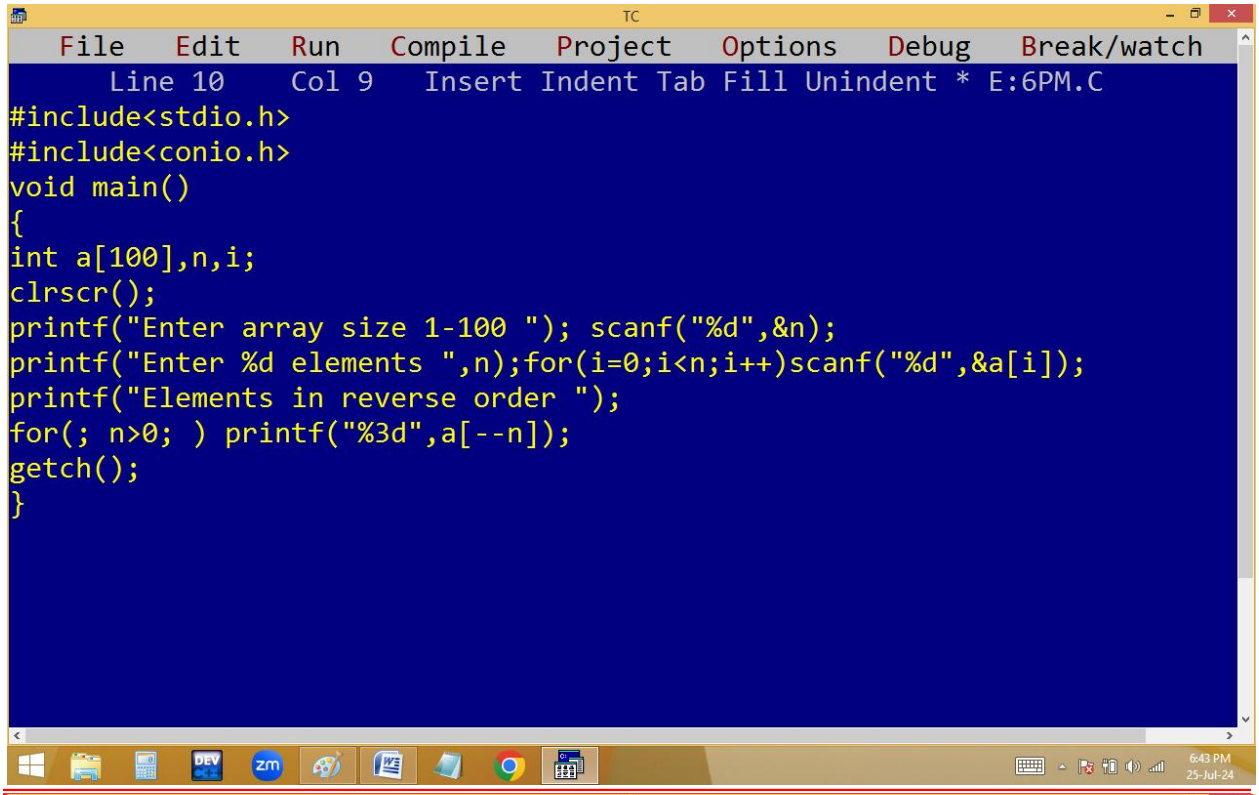

TC
Enter the no 95
Hexadecimal code: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 5 f

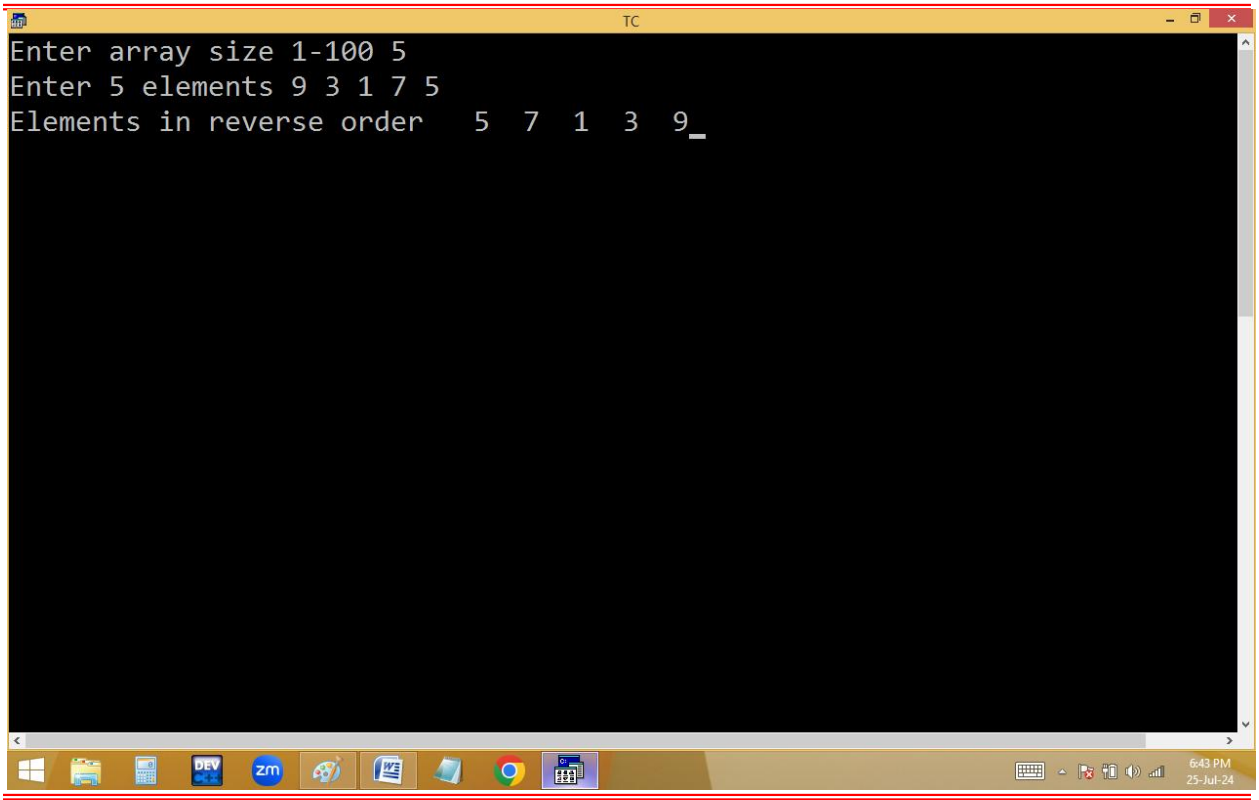

TC
Enter the no 45
Hexadecimal code: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 2 d
6:37 PM
25-Jul-24


TC
Enter the no 20\
Hexadecimal code: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 4
6:38 PM
25-Jul-24

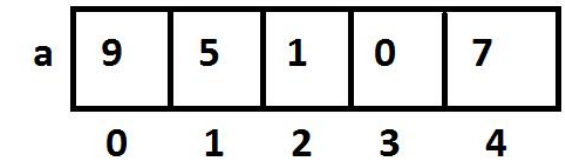
Arranging array elements in reverse order:

Temporary printing:

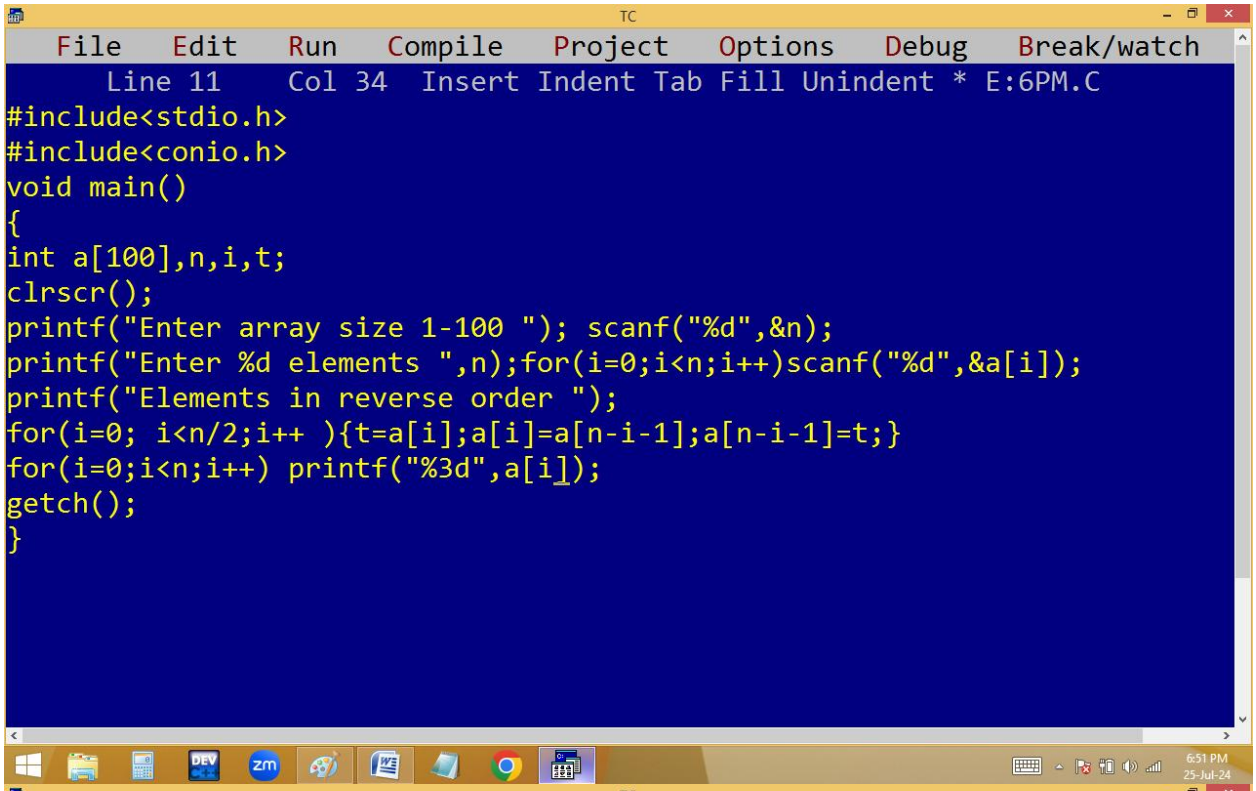

TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 9 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[100],n,i;
clrscr();
printf("Enter array size 1-100 "); scanf("%d",&n);
printf("Enter %d elements ",n);for(i=0;i<n;i++)scanf("%d",&a[i]);
printf("Elements in reverse order ");
for(; n>0;) printf("%3d",a[--n]);
getch();
}

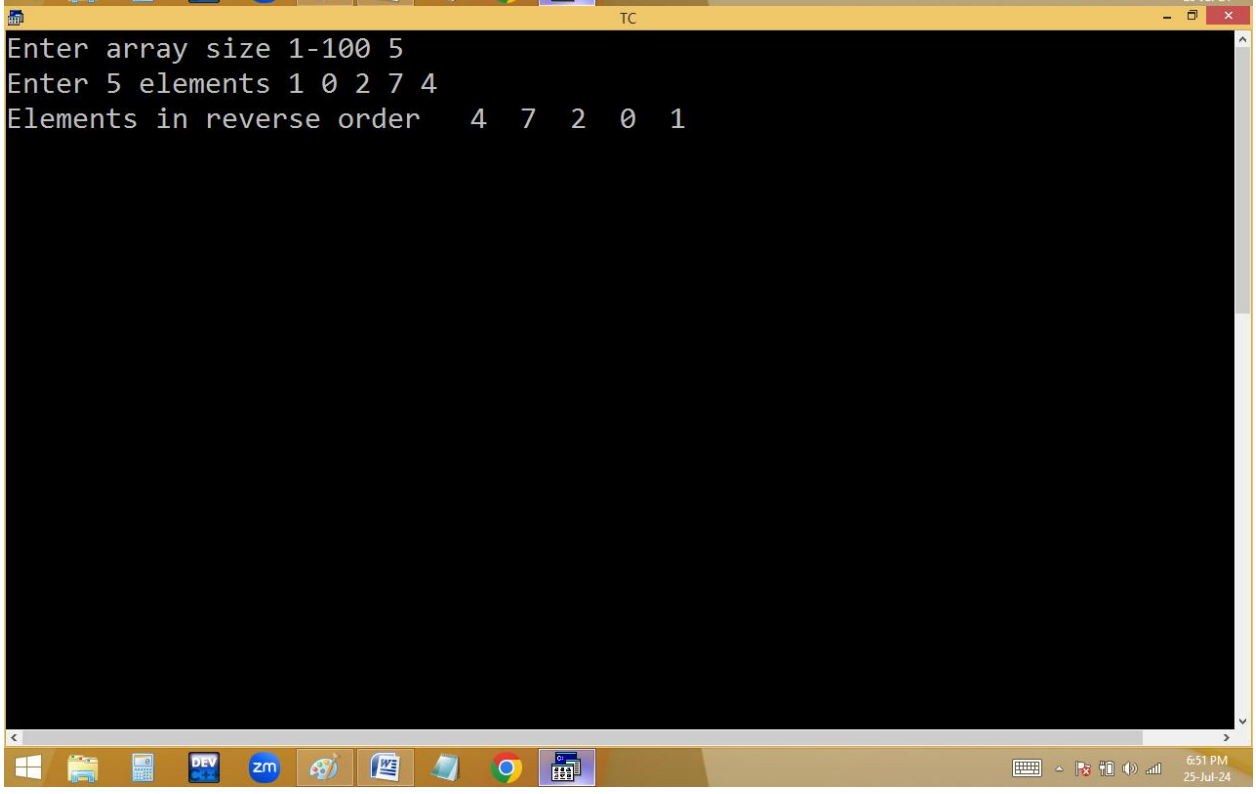

TC
Enter array size 1-100 5
Enter 5 elements 9 3 1 7 5
Elements in reverse order 5 7 1 3 9

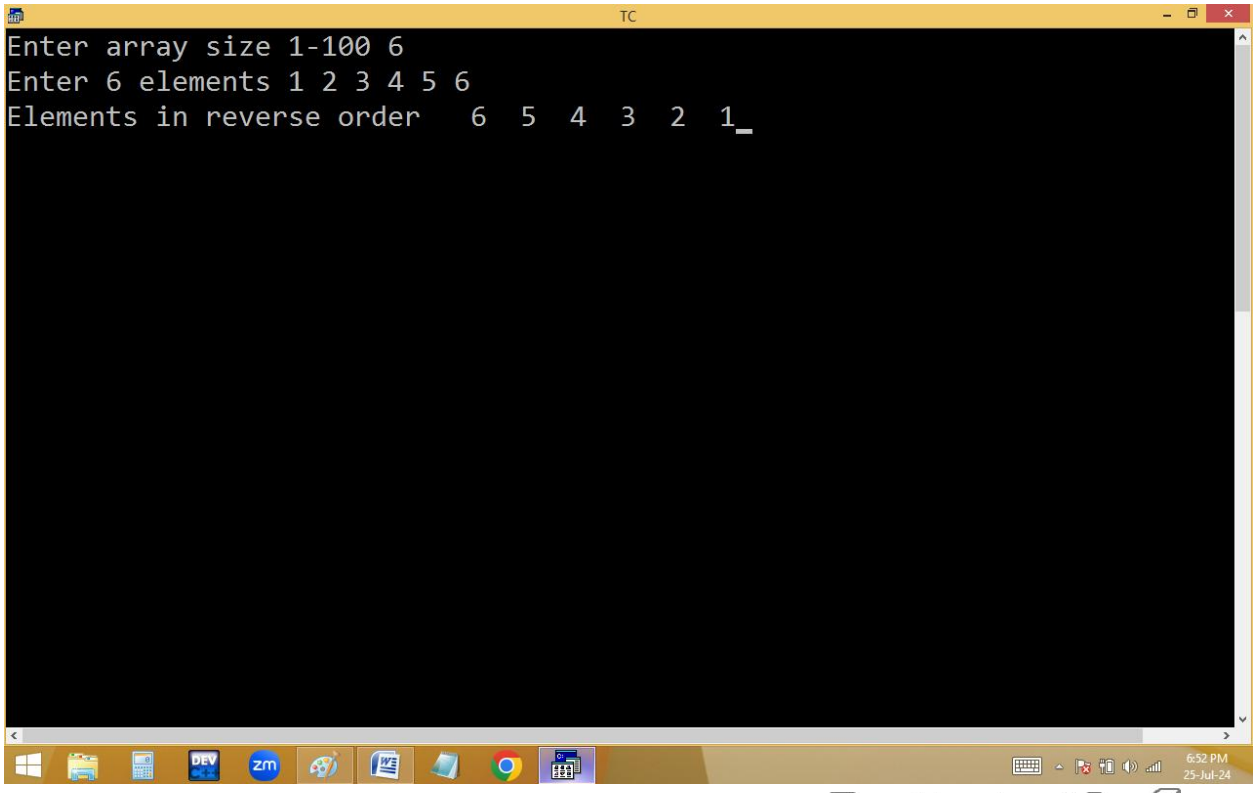
```
for( ; n> 0 ; ) p(a[--n]);
```

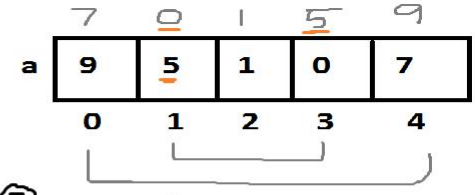


n
5
4 - 7
3 - 0
2 - 1
1 - 5
0 - 9

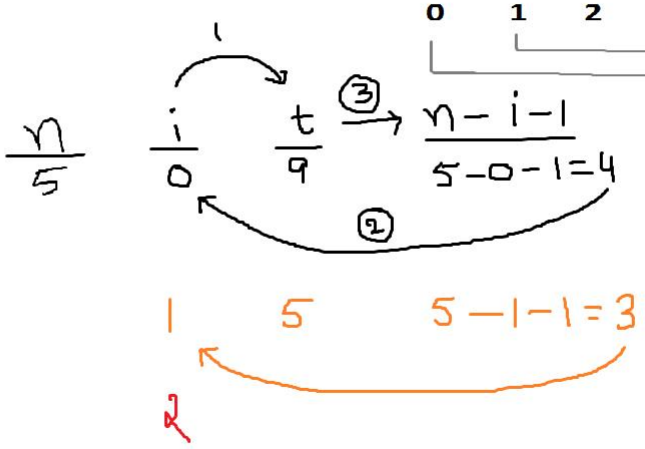

TC
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 34 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[100],n,i,t;
clrscr();
printf("Enter array size 1-100 "); scanf("%d",&n);
printf("Enter %d elements ",n);for(i=0;i<n;i++)scanf("%d",&a[i]);
printf("Elements in reverse order ");
for(i=0; i<n/2;i++){t=a[i];a[i]=a[n-i-1];a[n-i-1]=t;}
for(i=0;i<n;i++) printf("%3d",a[i]);
getch();
}


TC
Enter array size 1-100 5
Enter 5 elements 1 0 2 7 4
Elements in reverse order 4 7 2 0 1

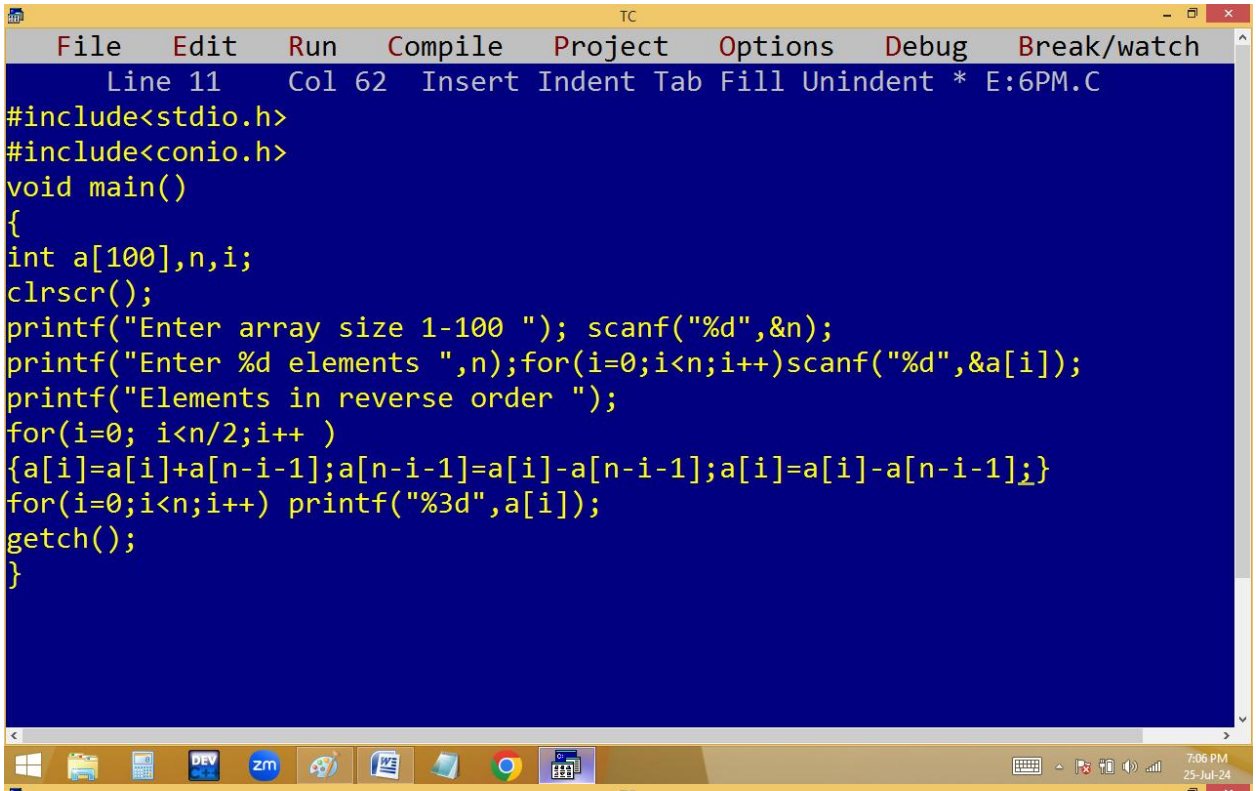


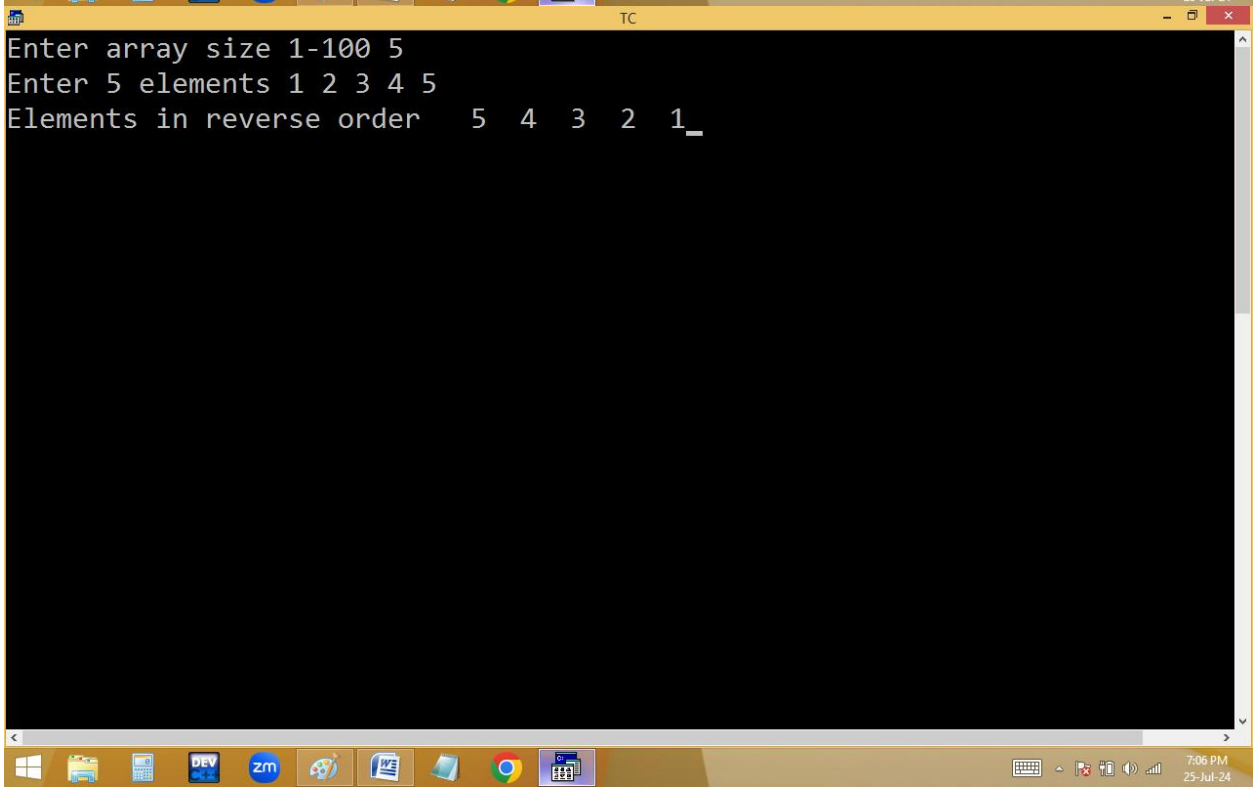


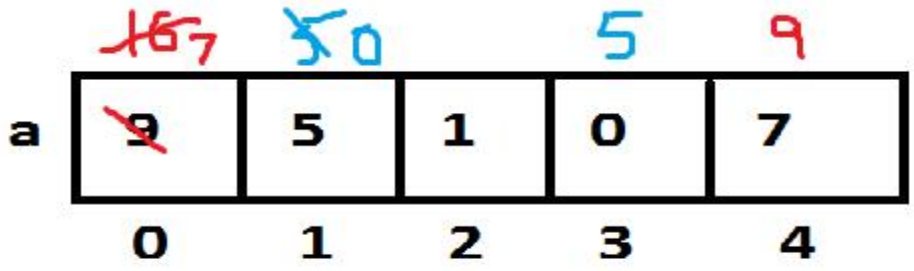

```
for(i=0; i<n/2;i++)
{
int t=a[i];
a[i]=a[n-i-1];
a[n-i-1]=t;
}
```



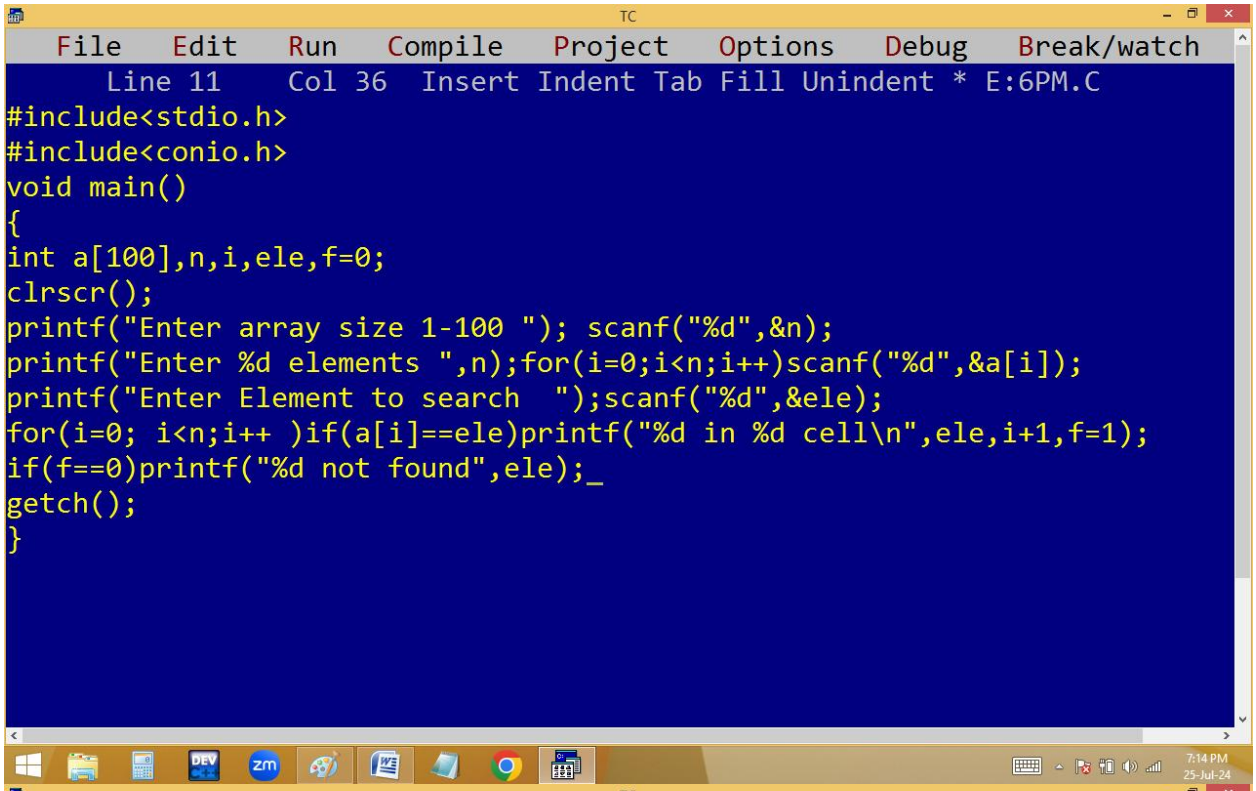
Without using 3rd variable:

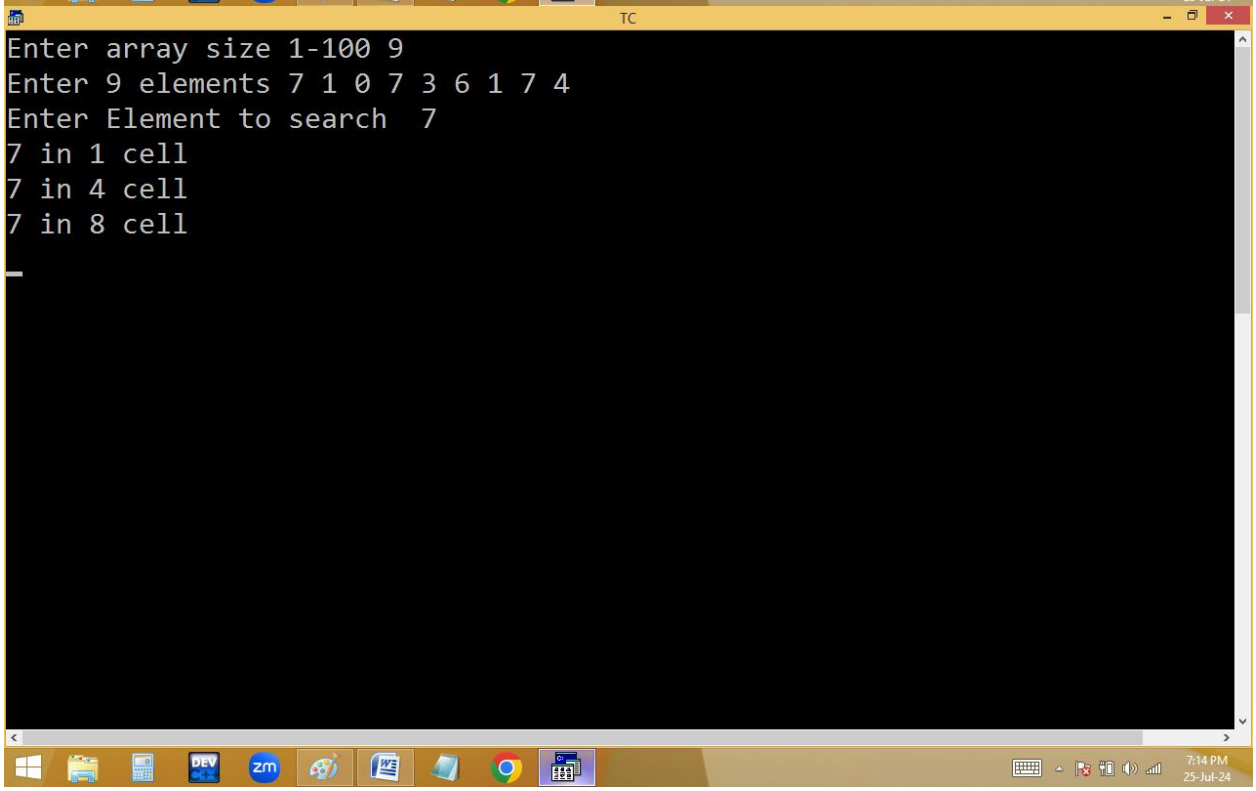

TC
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 62 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[100],n,i;
clrscr();
printf("Enter array size 1-100 "); scanf("%d",&n);
printf("Enter %d elements ",n);for(i=0;i<n;i++)scanf("%d",&a[i]);
printf("Elements in reverse order ");
for(i=0; i<n/2;i++)
{a[i]=a[i]+a[n-i-1];a[n-i-1]=a[i]-a[n-i-1];a[i]=a[i]-a[n-i-1];}
for(i=0;i<n;i++) printf("%3d",a[i]);
getch();
}

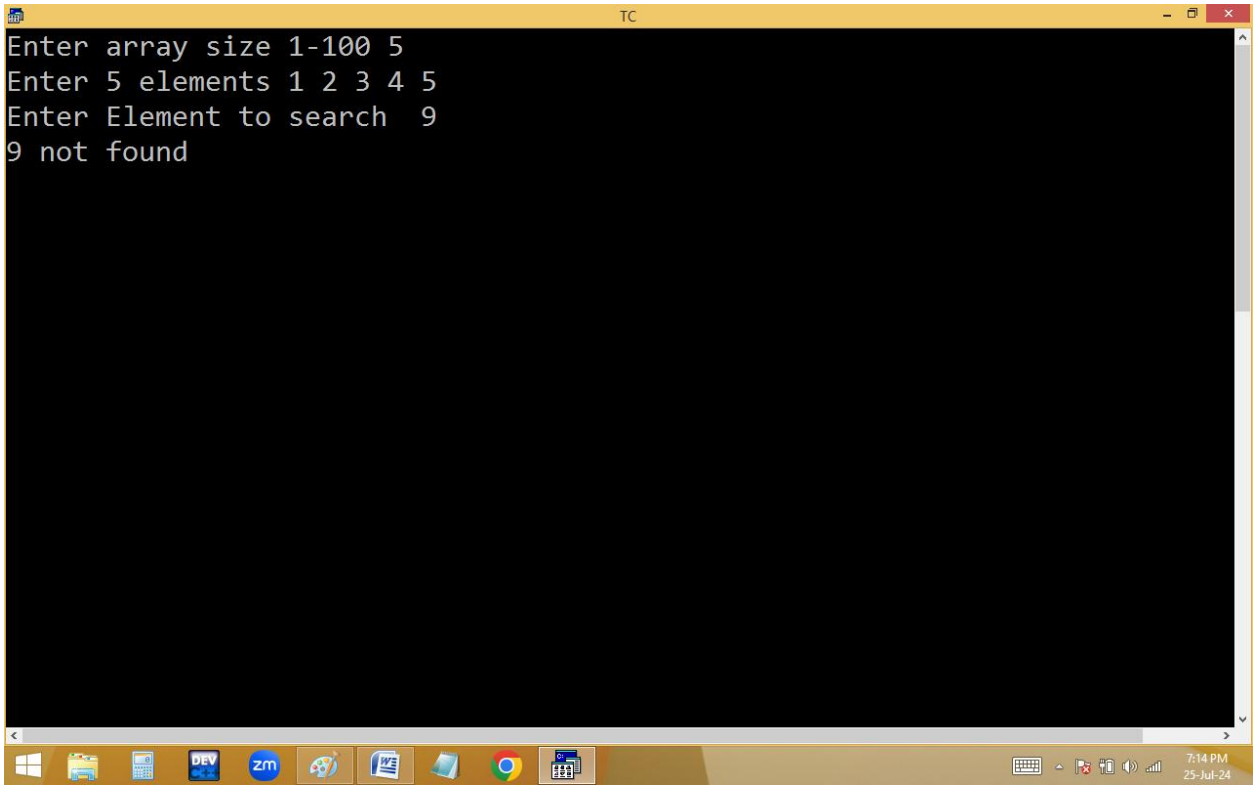

TC
Enter array size 1-100 5
Enter 5 elements 1 2 3 4 5
Elements in reverse order 5 4 3 2 1



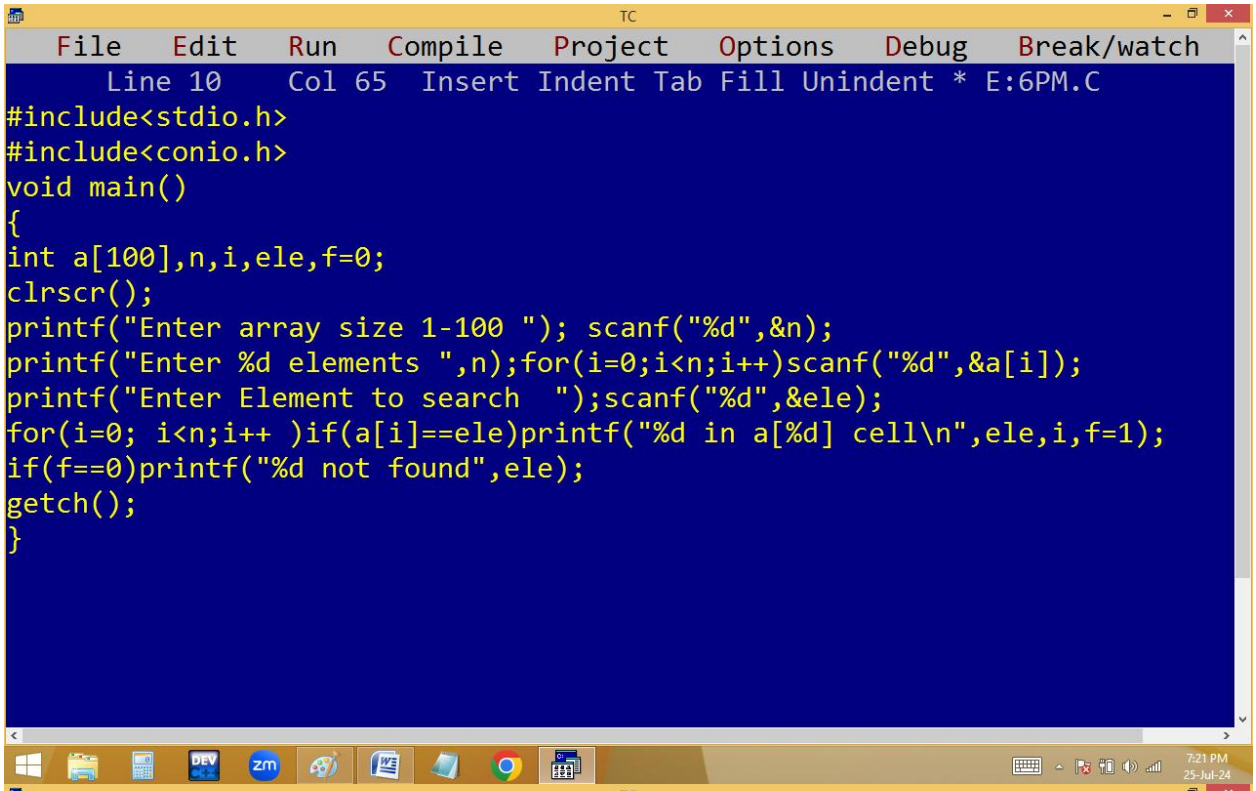
Linear search:

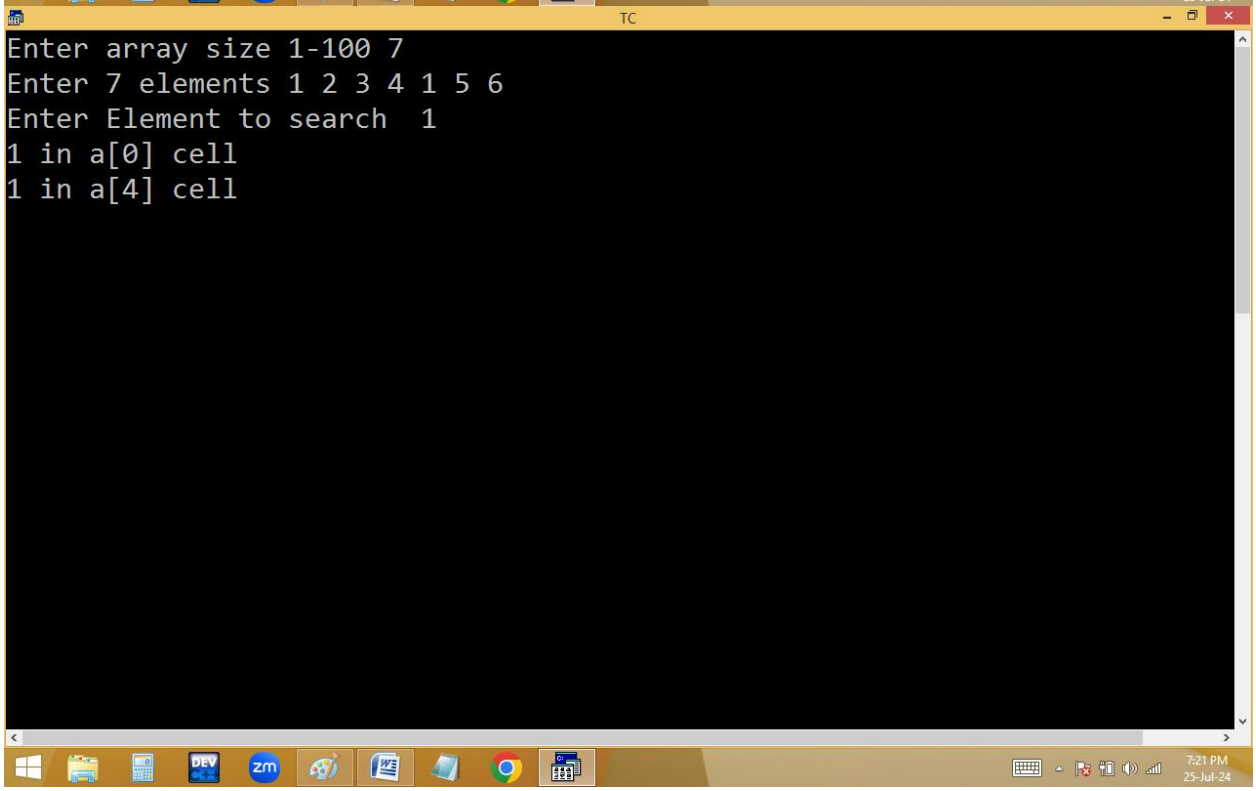

TC
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 36 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[100],n,i,ele,f=0;
clrscr();
printf("Enter array size 1-100 "); scanf("%d",&n);
printf("Enter %d elements ",n);for(i=0;i<n;i++)scanf("%d",&a[i]);
printf("Enter Element to search ");scanf("%d",&ele);
for(i=0; i<n;i++)if(a[i]==ele)printf("%d in %d cell\n",ele,i+1,f=1);
if(f==0)printf("%d not found",ele);_
getch();
}


TC
Enter array size 1-100 9
Enter 9 elements 7 1 0 7 3 6 1 7 4
Enter Element to search 7
7 in 1 cell
7 in 4 cell
7 in 8 cell



Finding index:

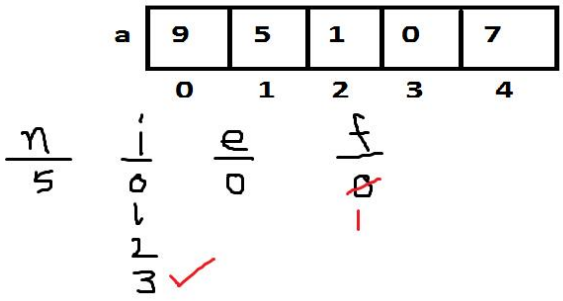

TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 65 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a[100],n,i,ele,f=0;
clrscr();
printf("Enter array size 1-100 "); scanf("%d",&n);
printf("Enter %d elements ",n);for(i=0;i<n;i++)scanf("%d",&a[i]);
printf("Enter Element to search ");scanf("%d",&ele);
for(i=0; i<n;i++)if(a[i]==ele)printf("%d in a[%d] cell\n",ele,i,f=1);
if(f==0)printf("%d not found",ele);
getch();
}


TC
Enter array size 1-100 7
Enter 7 elements 1 2 3 4 1 5 6
Enter Element to search 1
1 in a[0] cell
1 in a[4] cell

```
for(i=0;i<5;i++)
if(a[i]==e) p("%d in %d cell\n",e, i+1,f=1);
```

0 ~ 4

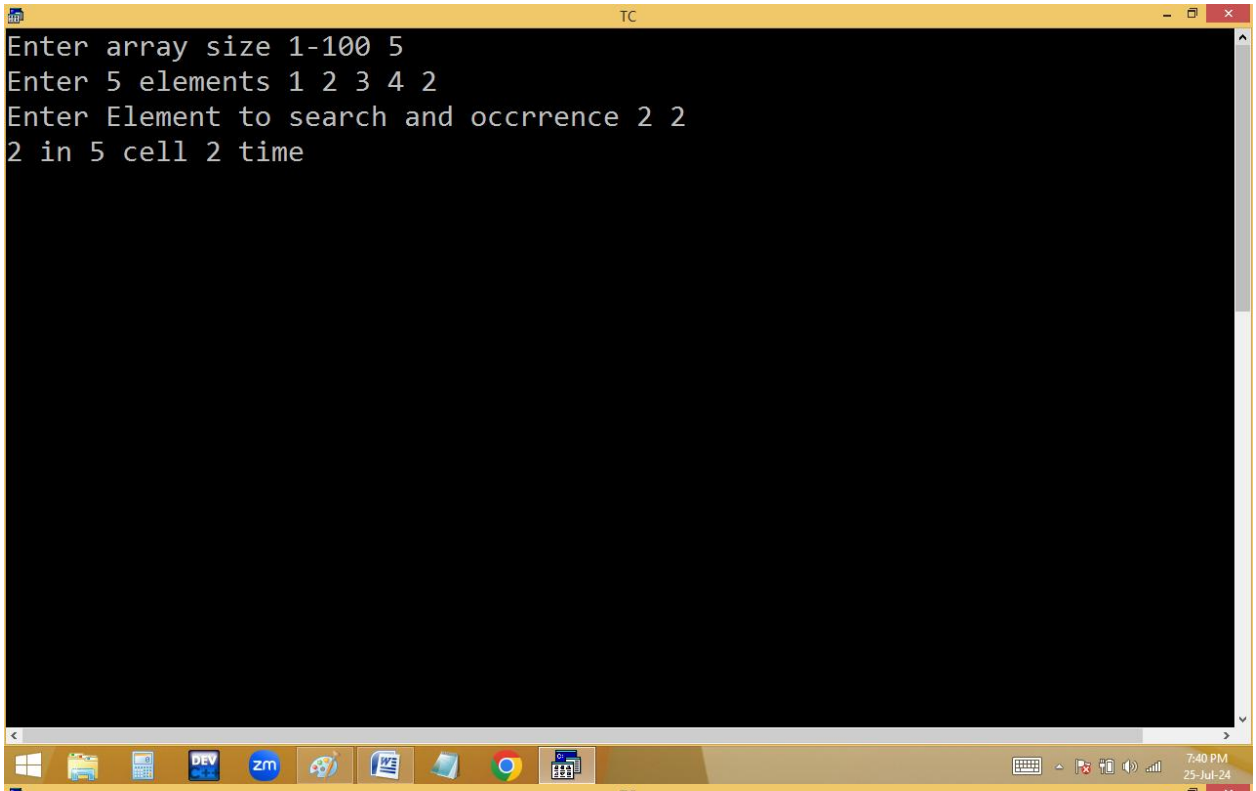
```
if(f==0)p(ele not found);
```

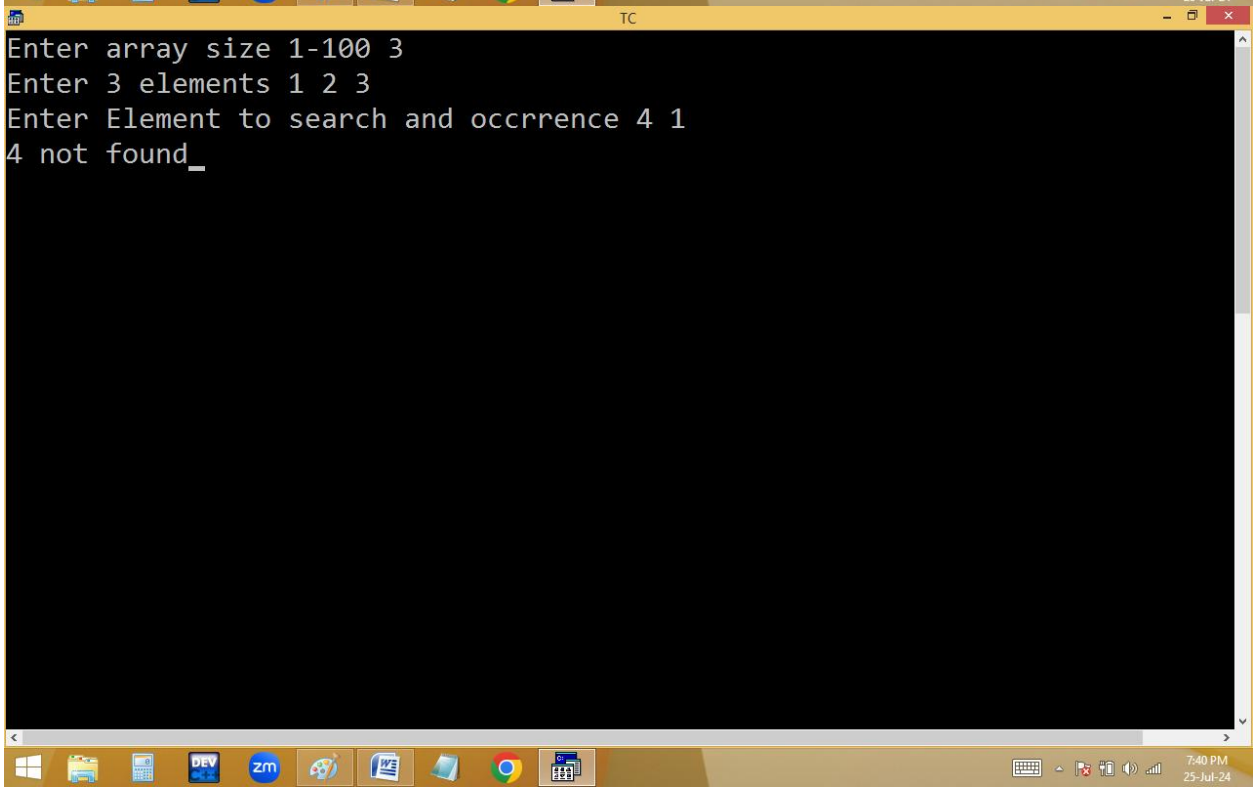


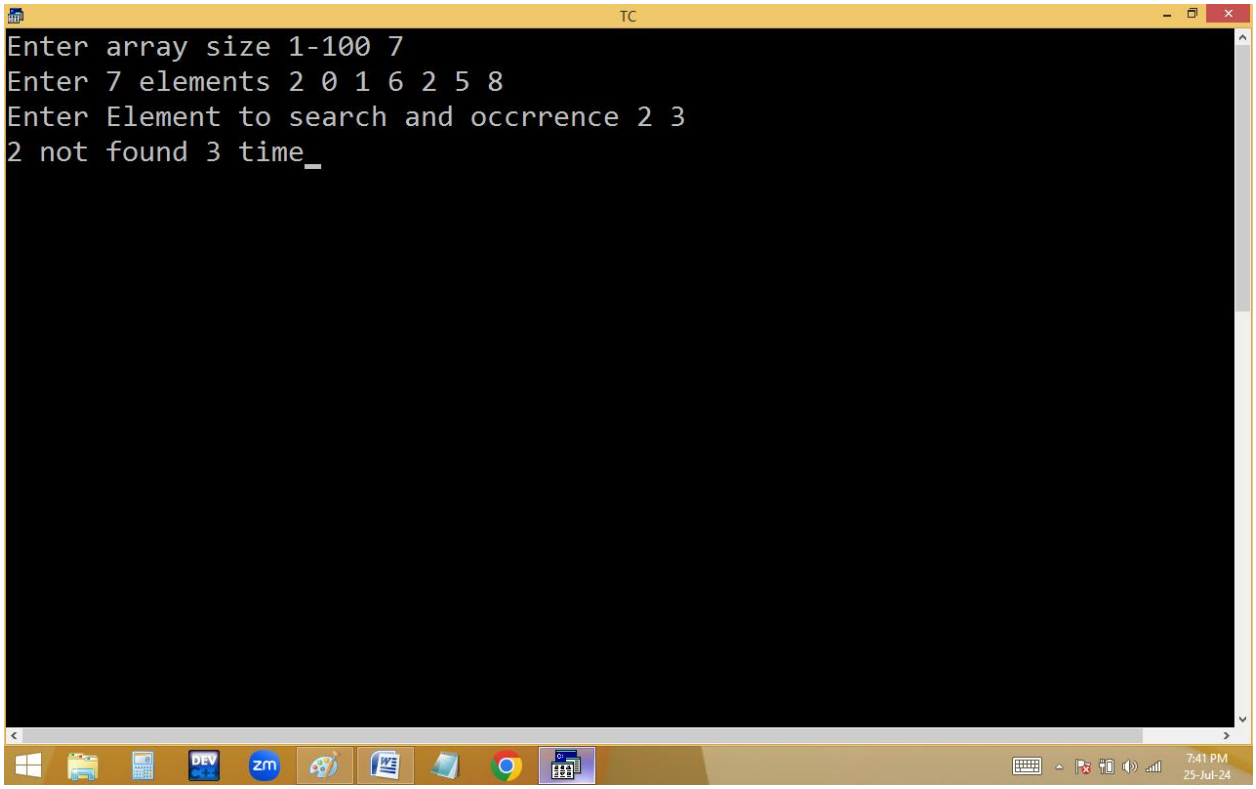
Finding nth occurrence of given array element:

TC

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a[100],n,i,ele,f=0,occ;
clrscr();
printf("Enter array size 1-100 "); scanf("%d",&n);
printf("Enter %d elements ",n);for(i=0;i<n;i++)scanf("%d",&a[i]);
printf("Enter Element to search and occrrence ");scanf("%d%d",&ele,&occ);
for(i=0; i<n;i++ )
{
if(a[i]==ele)
{
f++;if(f==occ){printf("%d in %d cell %d time\n",ele,i+1,occ);break;}
}
}
if(f==0)printf("%d not found",ele);
else if(f!=occ)printf("%d not found %d time",ele,occ);
getch();
}
```


TC
Enter array size 1-100 5
Enter 5 elements 1 2 3 4 2
Enter Element to search and occrrence 2 2
2 in 5 cell 2 time


TC
Enter array size 1-100 3
Enter 3 elements 1 2 3
Enter Element to search and occrrence 4 1
4 not found


TC
Enter array size 1-100 7
Enter 7 elements 2 0 1 6 2 5 8
Enter Element to search and occrrence 2 3
2 not found 3 time
7:41 PM
25-Jul-24