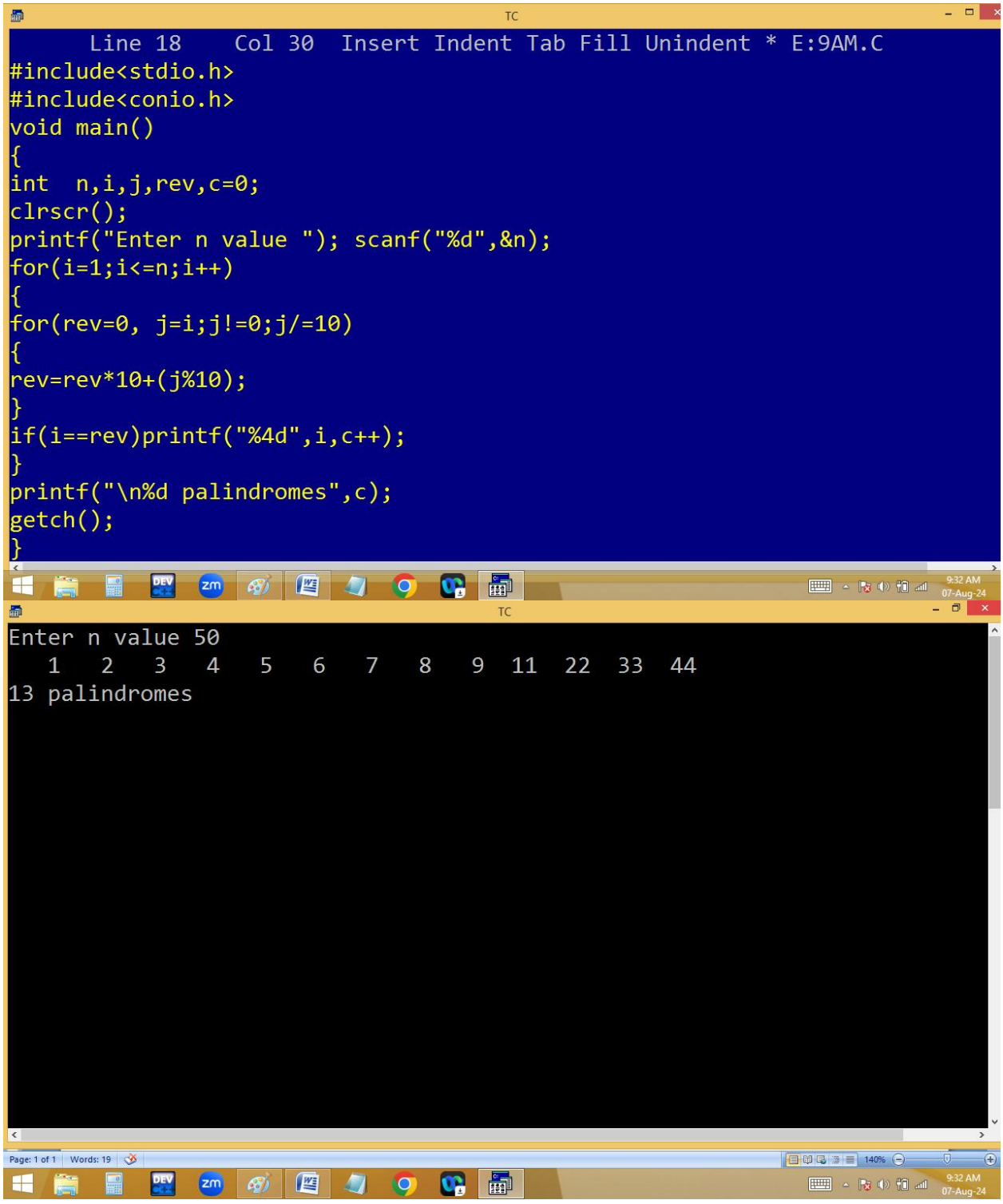
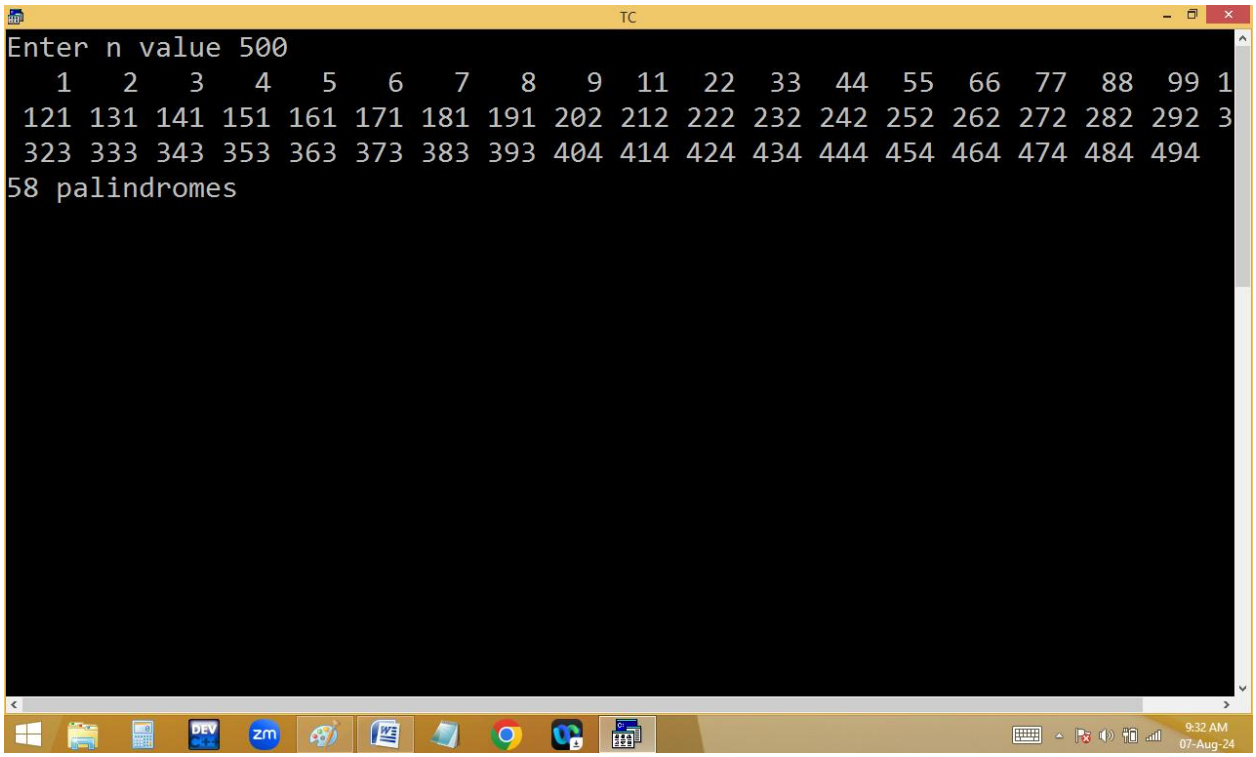
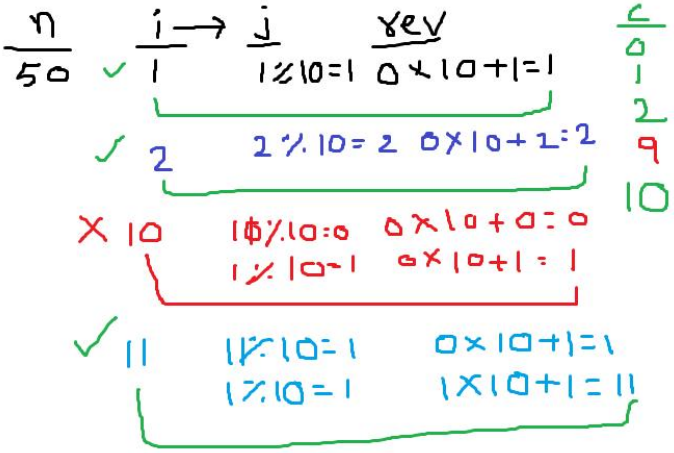
Printing 1..n palindrome no's and count:

Eg: 1-50 ➔ 1 to 9, 11, 22, 33, 44 ➔ 13 palindromes

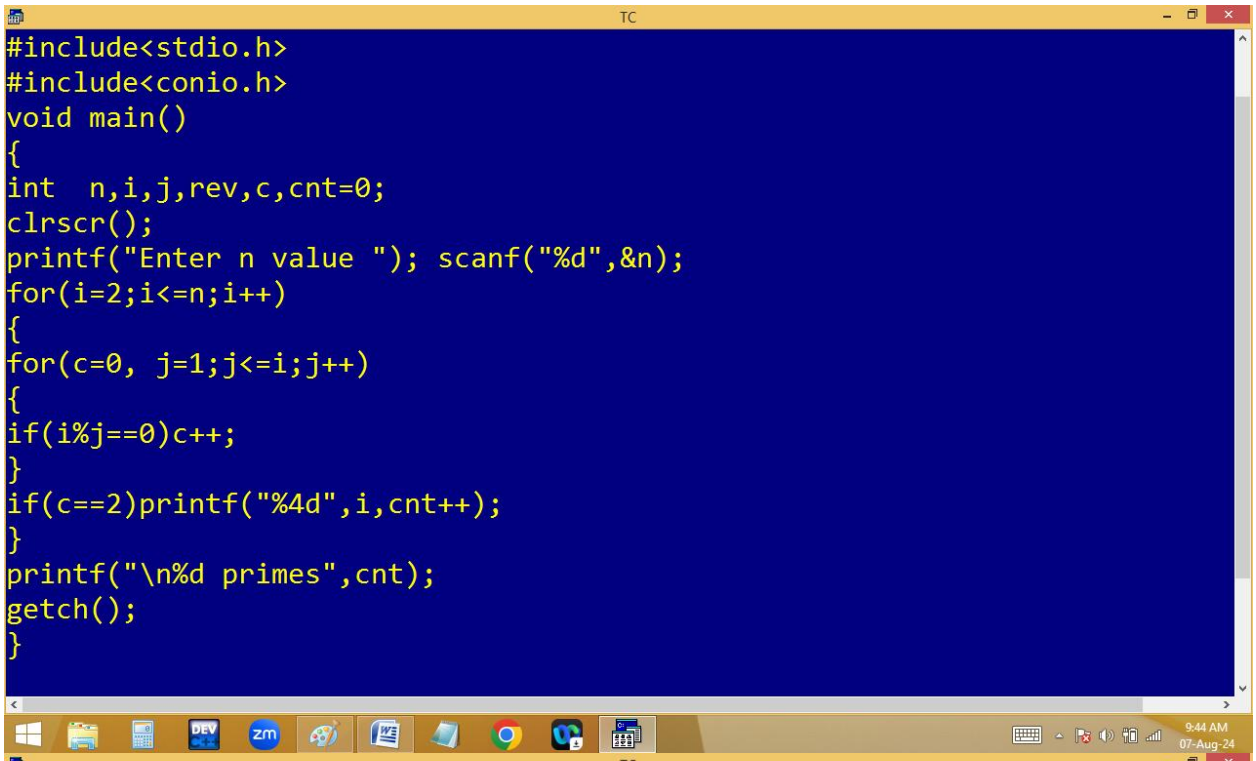


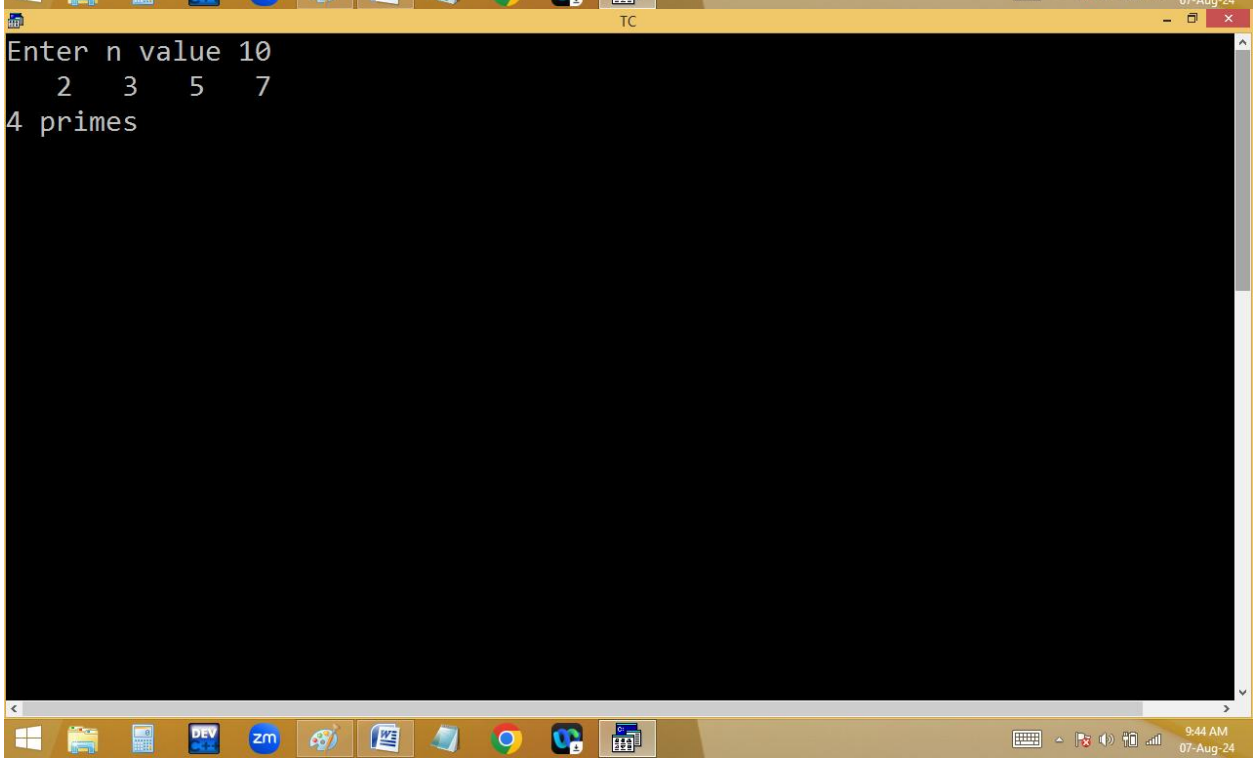


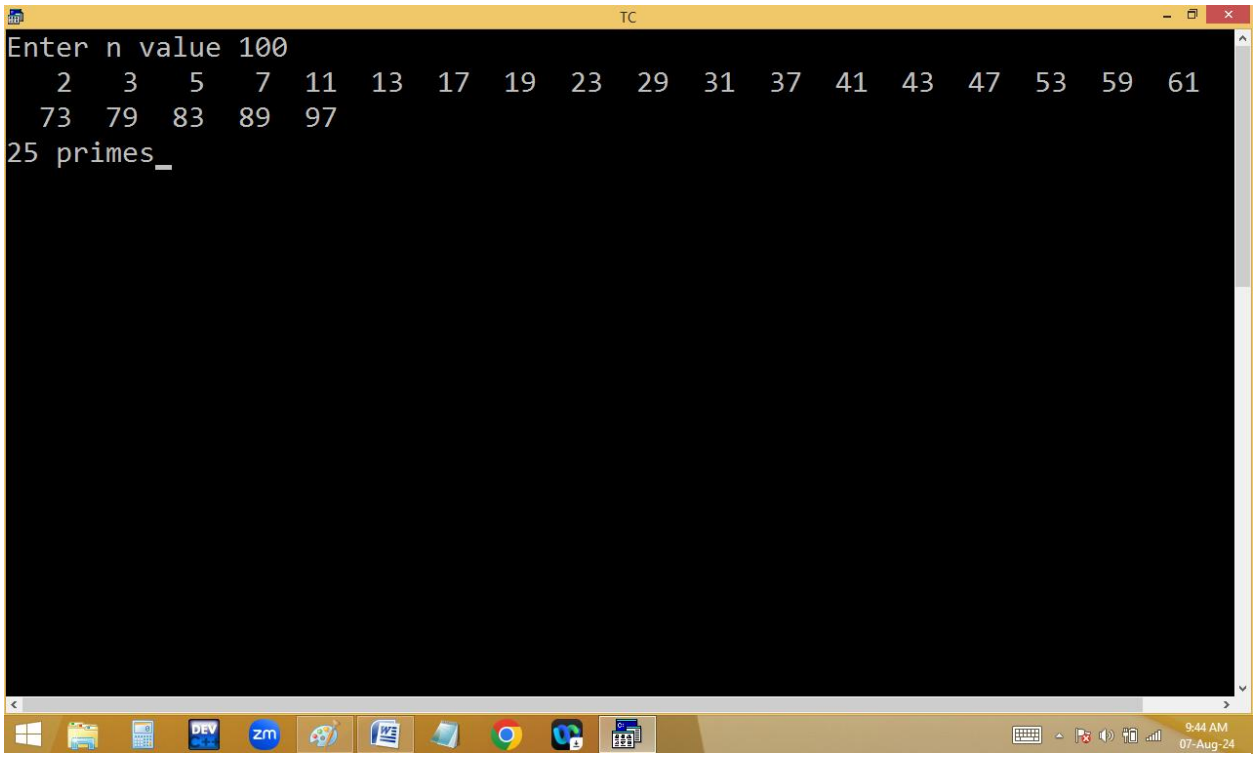

```
for( i=1; i<=n;i++)
{
for( j=i,rev=0;j!=0;j/=10)
{
rev=rev*10+(j%10);
}
if(i==rev)p(i,c++);
}
```



Printing 1..n prime no's and count:


TC
#include<stdio.h>
#include<conio.h>
void main()
{
int n,i,j,rev,c,cnt=0;
clrscr();
printf("Enter n value "); scanf("%d",&n);
for(i=2;i<=n;i++)
{
for(c=0, j=1;j<=i;j++)
{
if(i%j==0)c++;
}
if(c==2)printf("%4d",i,cnt++);
}
printf("\n%d primes",cnt);
getch();
}

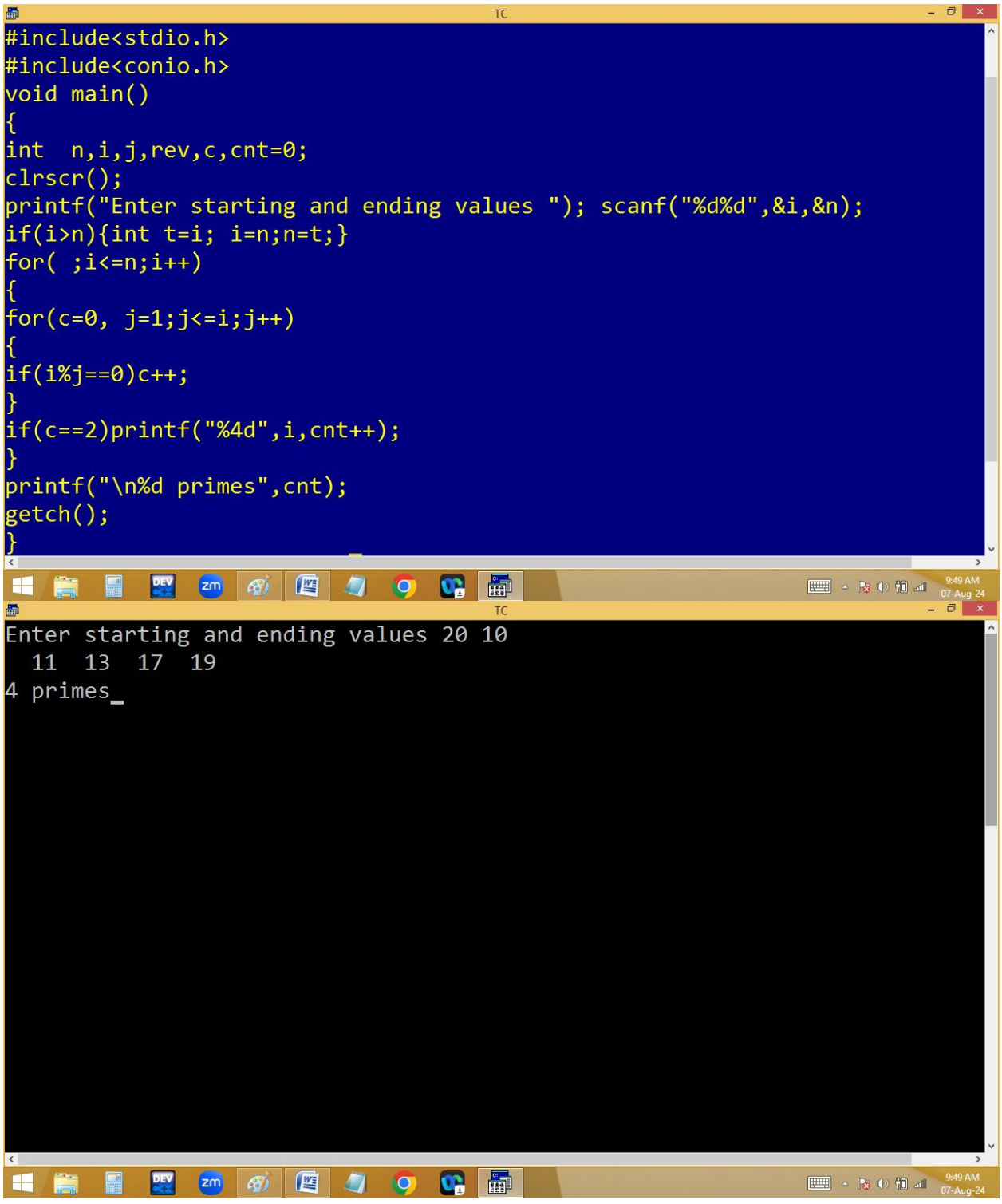

TC
Enter n value 10
2 3 5 7
4 primes

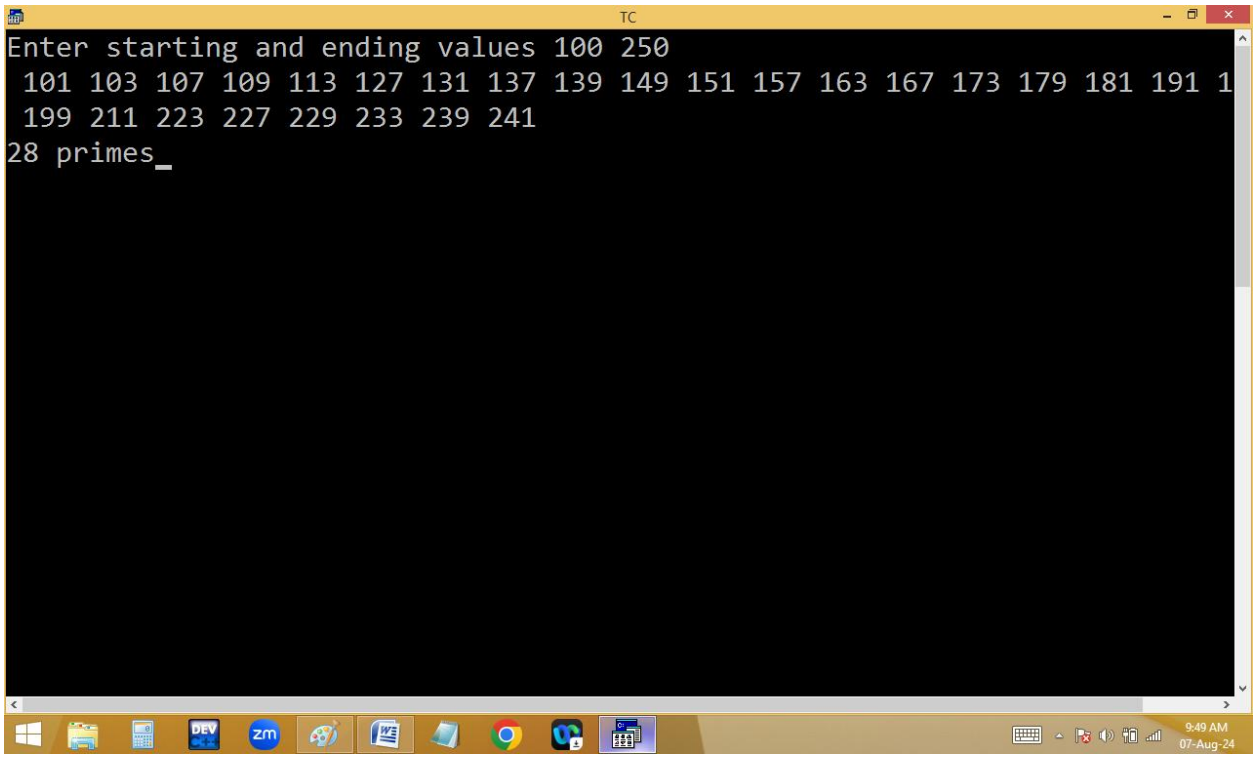



```
for( i=2; i<=n; i++ )
{
for( j=1,c=0; j<=i;j++)
{
if(i%j==0)c++;
}
if(c==2) p("%d",i, cnt++);
}
```

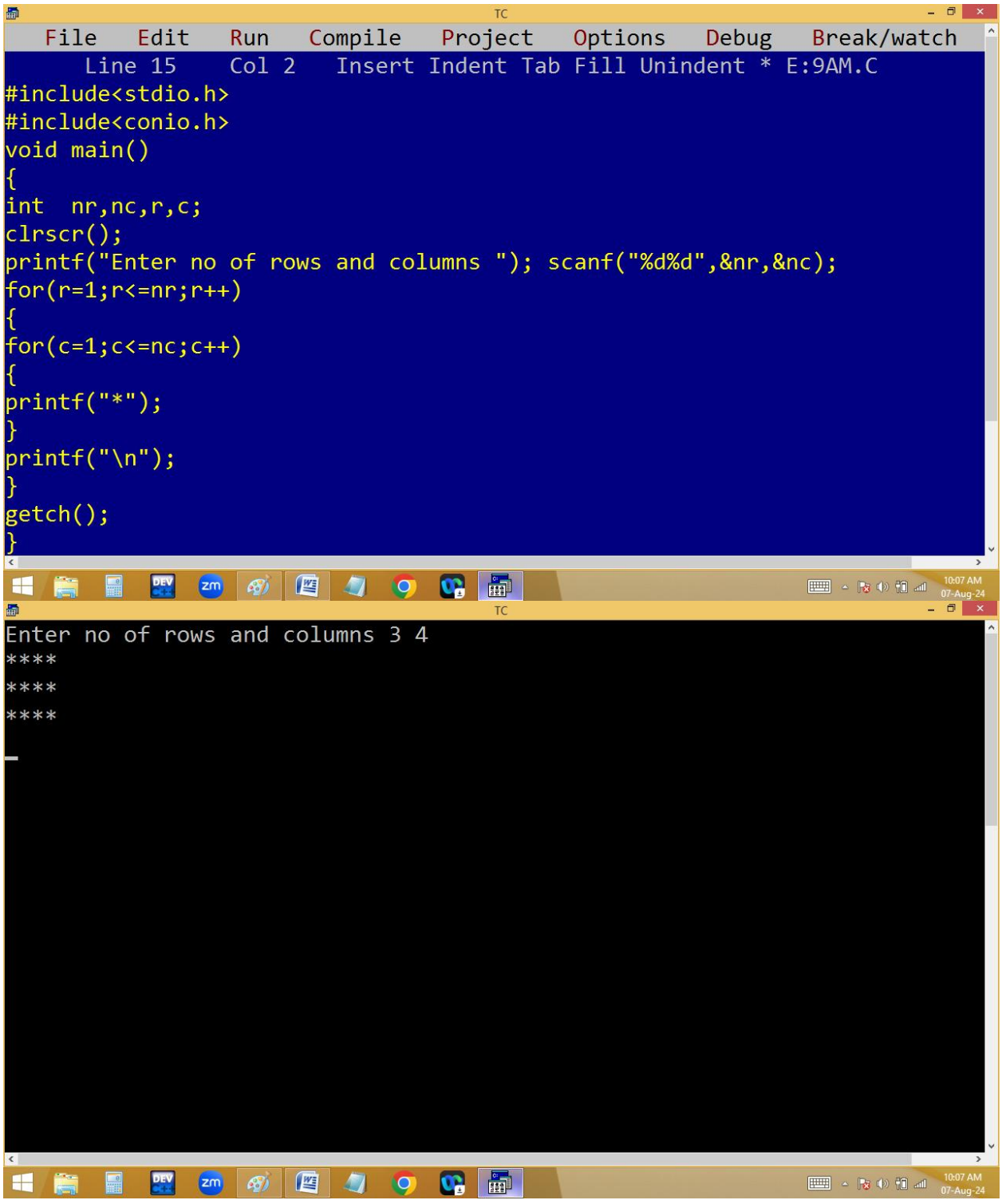
n	i	j	c	cnt
10	2	1 : 0	0 1 2	0
		2 % 2 = 0		1
	3	1 = 0	0 1 2	2
		3 % 3 = 0		
	4	1 = 0	0 1 2 3	3
		4 % 2 = 0		
		4 % 4 = 0		
	5	1 = 0	0 1 2	
		5 % 5 = 0		

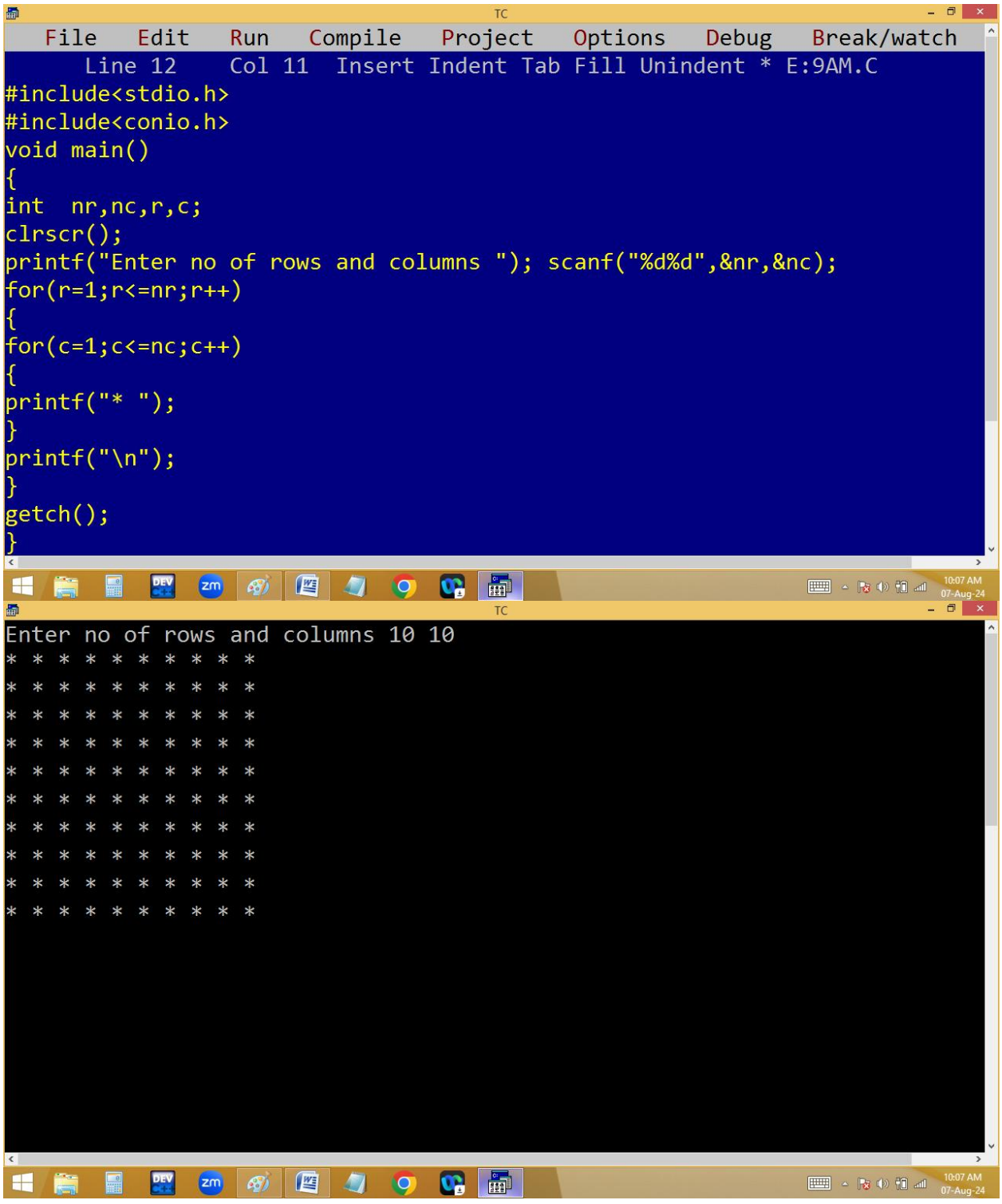
Printing n to n primes:

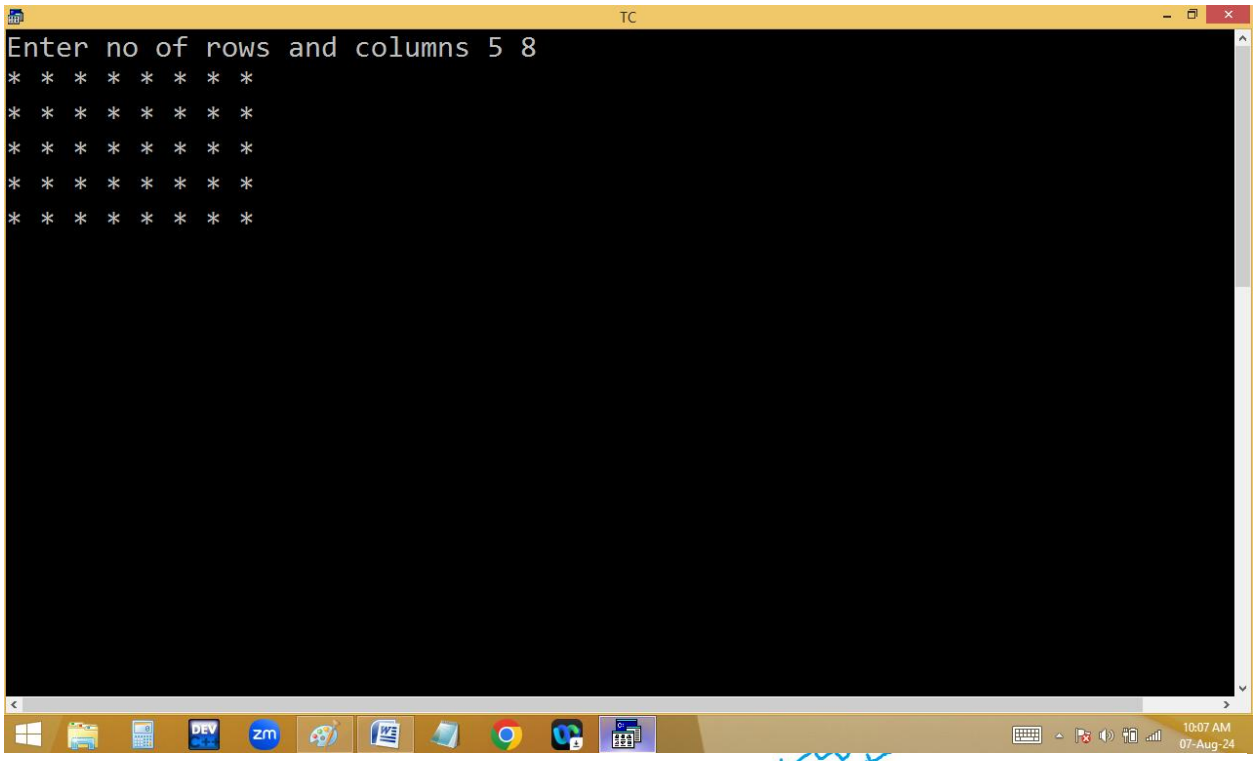

TC
#include<stdio.h>
#include<conio.h>
void main()
{
int n,i,j,rev,c,cnt=0;
clrscr();
printf("Enter starting and ending values "); scanf("%d%d",&i,&n);
if(i>n){int t=i; i=n;n=t;}
for(;i<=n;i++)
{
for(c=0, j=1;j<=i;j++)
{
if(i%j==0)c++;
}
if(c==2)printf("%4d",i,cnt++);
}
printf("\n%d primes",cnt);
getch();
}
TC
Enter starting and ending values 20 10
11 13 17 19
4 primes

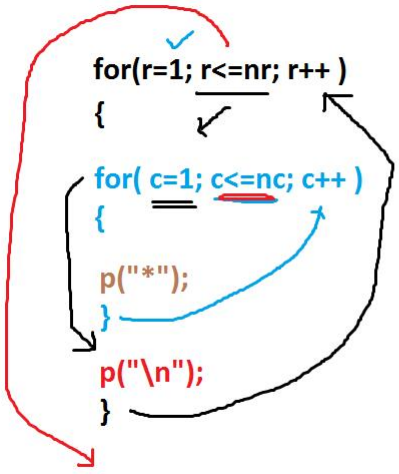

TC
Enter starting and ending values 100 250
101 103 107 109 113 127 131 137 139 149 151 157 163 167 173 179 181 191 1
199 211 223 227 229 233 239 241
28 primes
9:49 AM
07-Aug-24

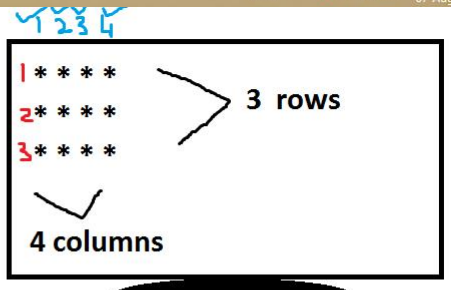
Patterns:


TC
File Edit Run Compile Project Options Debug Break/watch
Line 15 Col 2 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d%d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
printf("*");
}
printf("\n");
}
getch();
}
TC
Enter no of rows and columns 3 4
****
****
****


TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 11 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d%d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
printf("* ");
}
printf("\n");
}
getch();
}
TC
Enter no of rows and columns 10 10
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *
* * * * * * * * * *

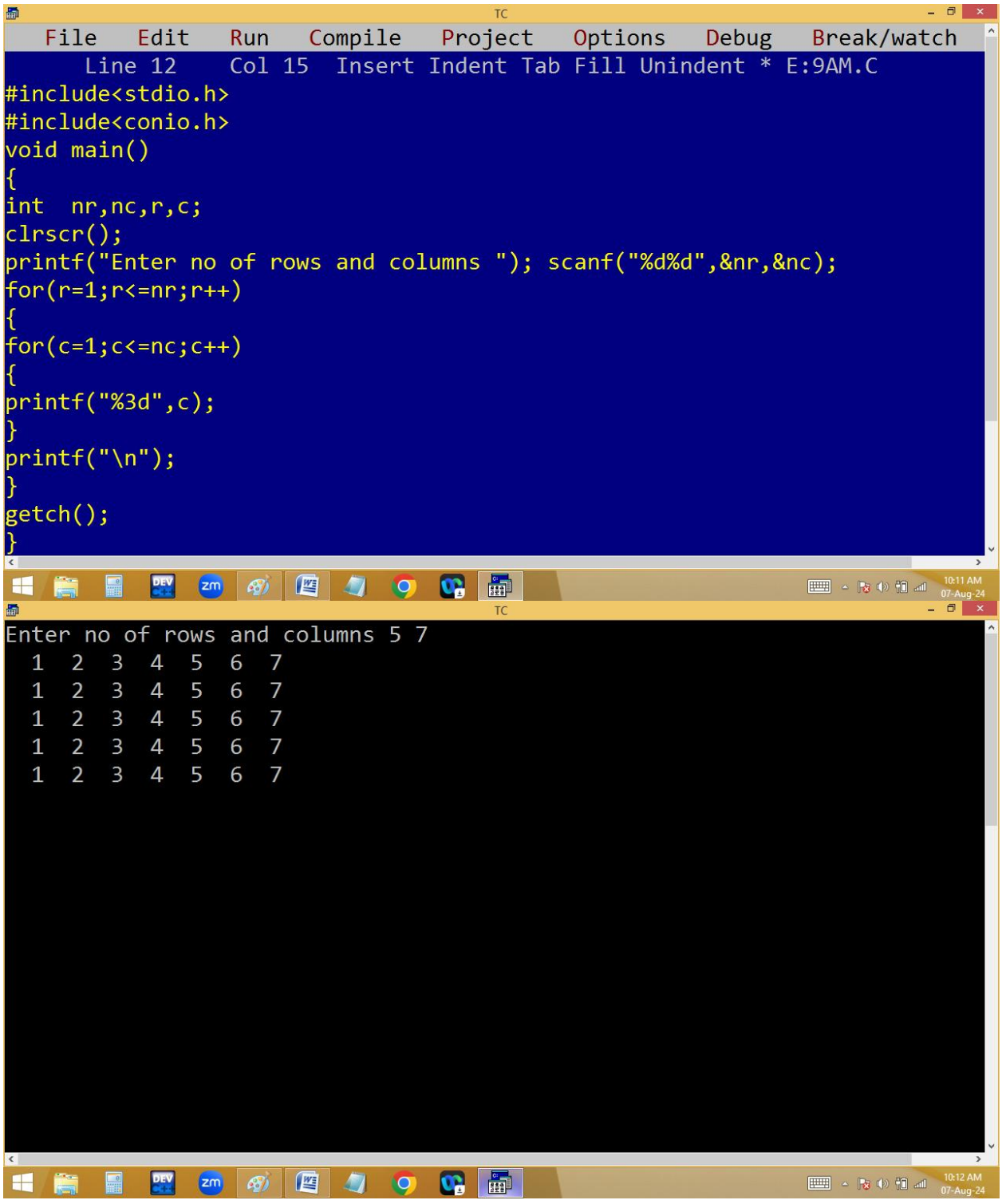


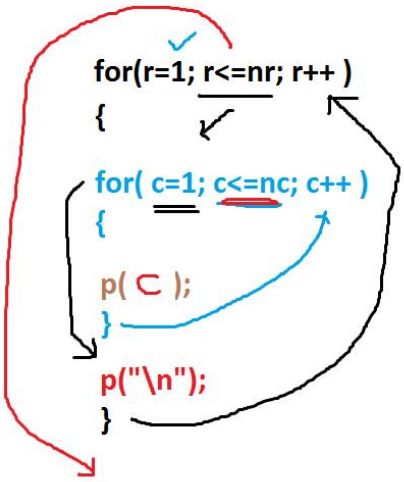


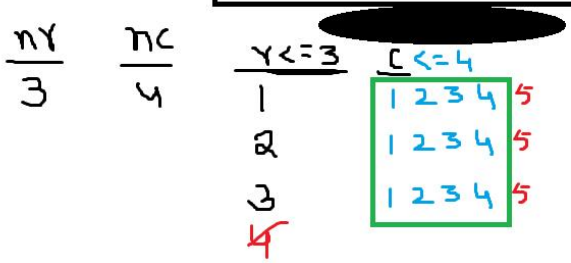


nr / 3 nc / 4

r<=3	c<=4
1	1 2 3 4 5
2	1 2 3 4 5
3	1 2 3 4 5
4	


TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 15 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d%d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
printf("%3d",c);
}
printf("\n");
}
getch();
}
10:11 AM
07-Aug-24
TC
Enter no of rows and columns 5 7
1 2 3 4 5 6 7
1 2 3 4 5 6 7
1 2 3 4 5 6 7
1 2 3 4 5 6 7
1 2 3 4 5 6 7
10:12 AM
07-Aug-24



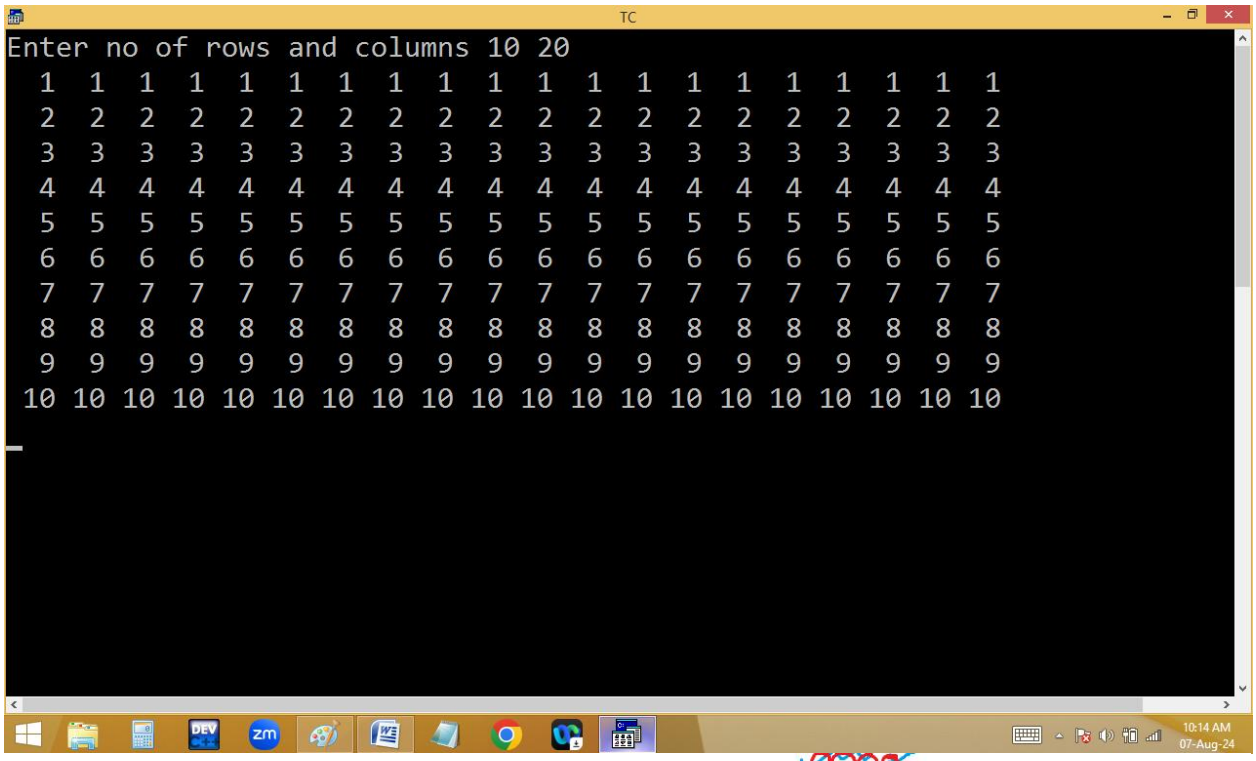


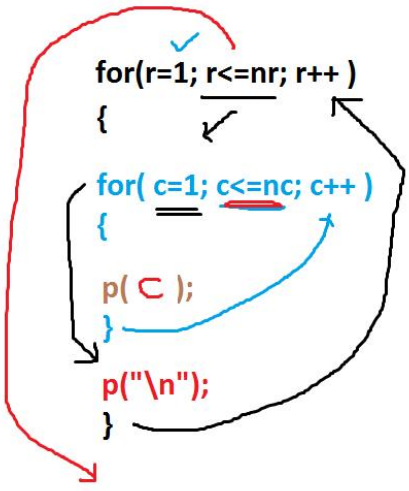
TC

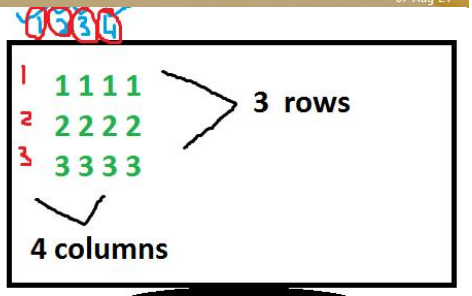
File Edit Run Compile Project Options Debug Break/watch

Line 12 Col 15 Insert Indent Tab Fill Unindent * E:9AM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
int  nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d%d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
printf("%3d",r);
}
printf("\n");
}
getch();
}
```



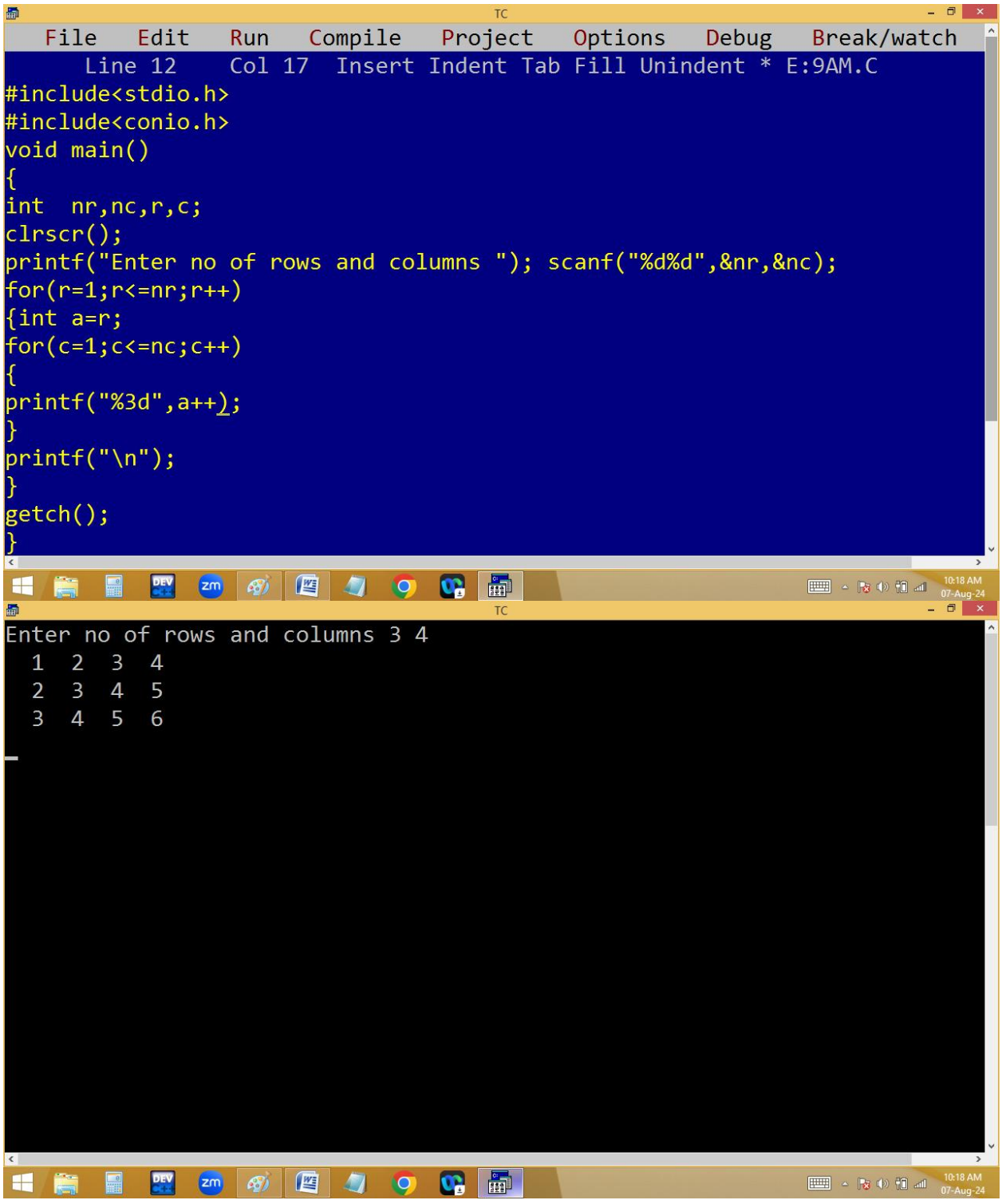


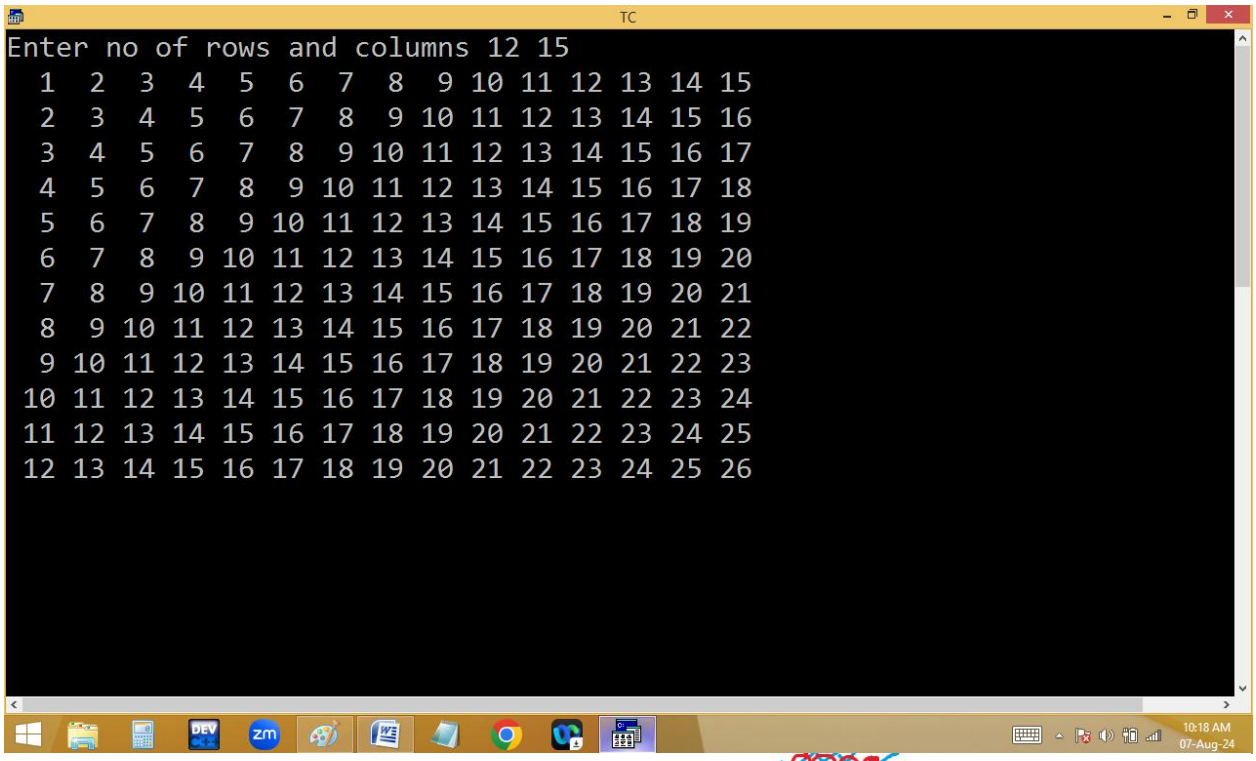


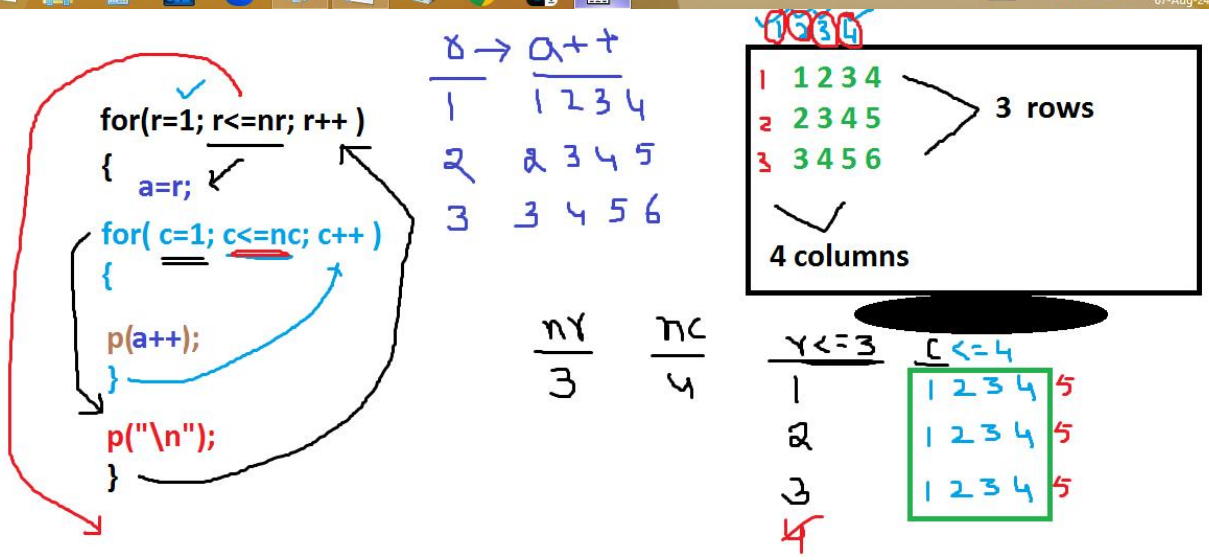
nr / 3 nc / 4

r<=3: 1, 2, 3, 4

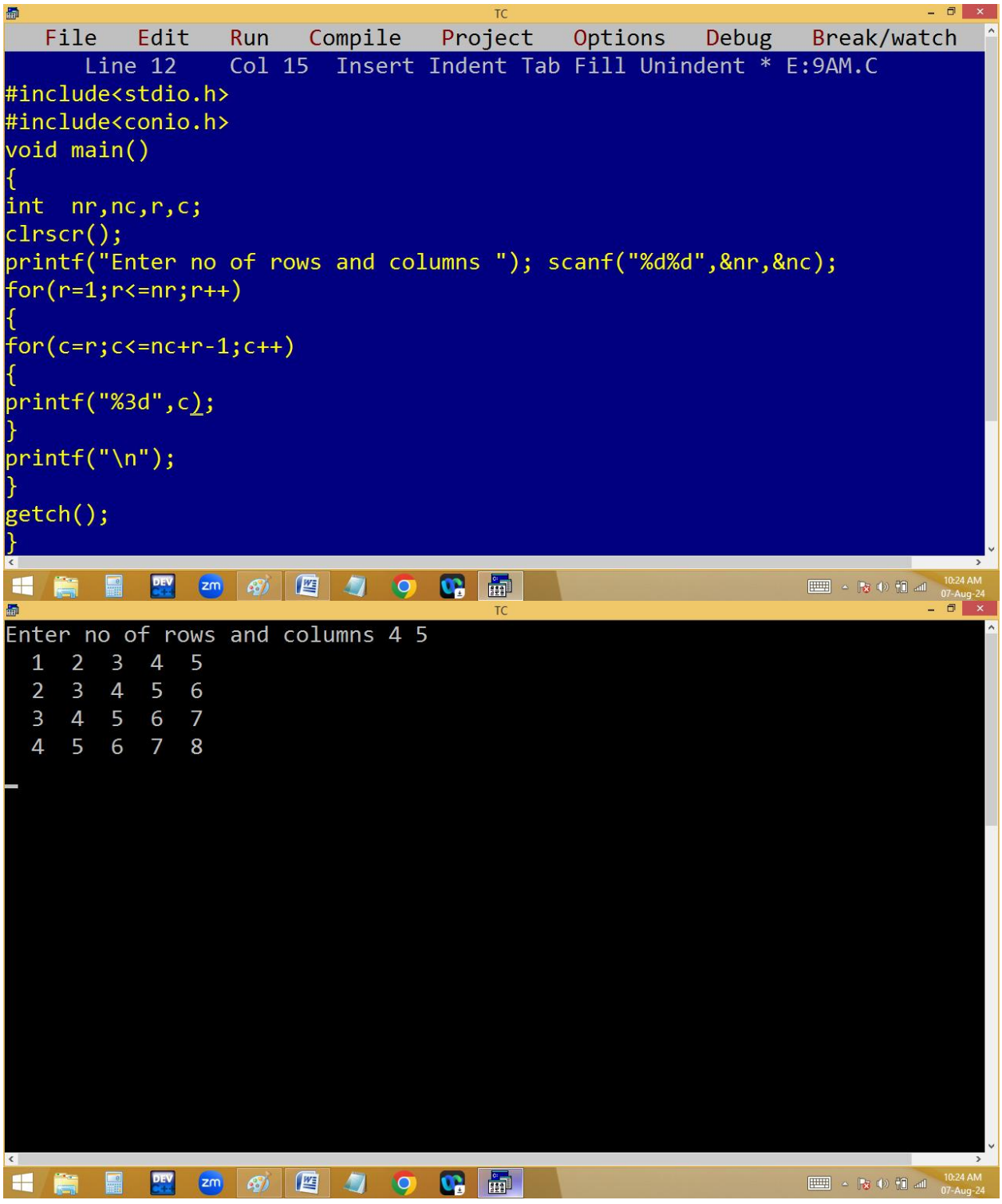
c<=4: 1 2 3 4 5 / 1 2 3 4 5 / 1 2 3 4 5

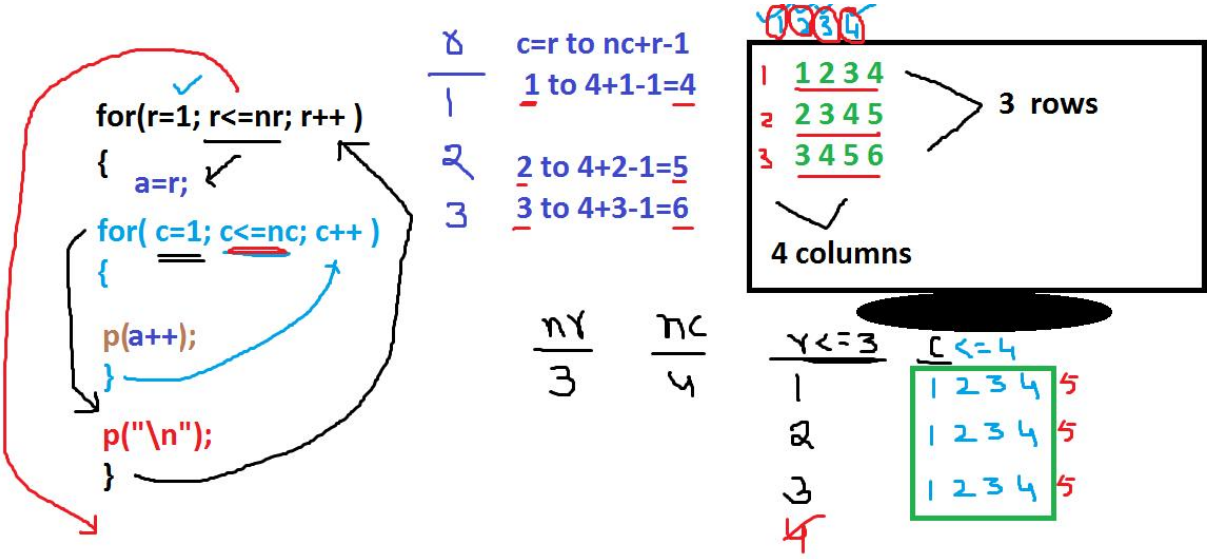

TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 17 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d%d",&nr,&nc);
for(r=1;r<=nr;r++)
{int a=r;
for(c=1;c<=nc;c++)
{
printf("%3d",a++);
}
printf("\n");
}
getch();
}
TC
Enter no of rows and columns 3 4
1 2 3 4
2 3 4 5
3 4 5 6

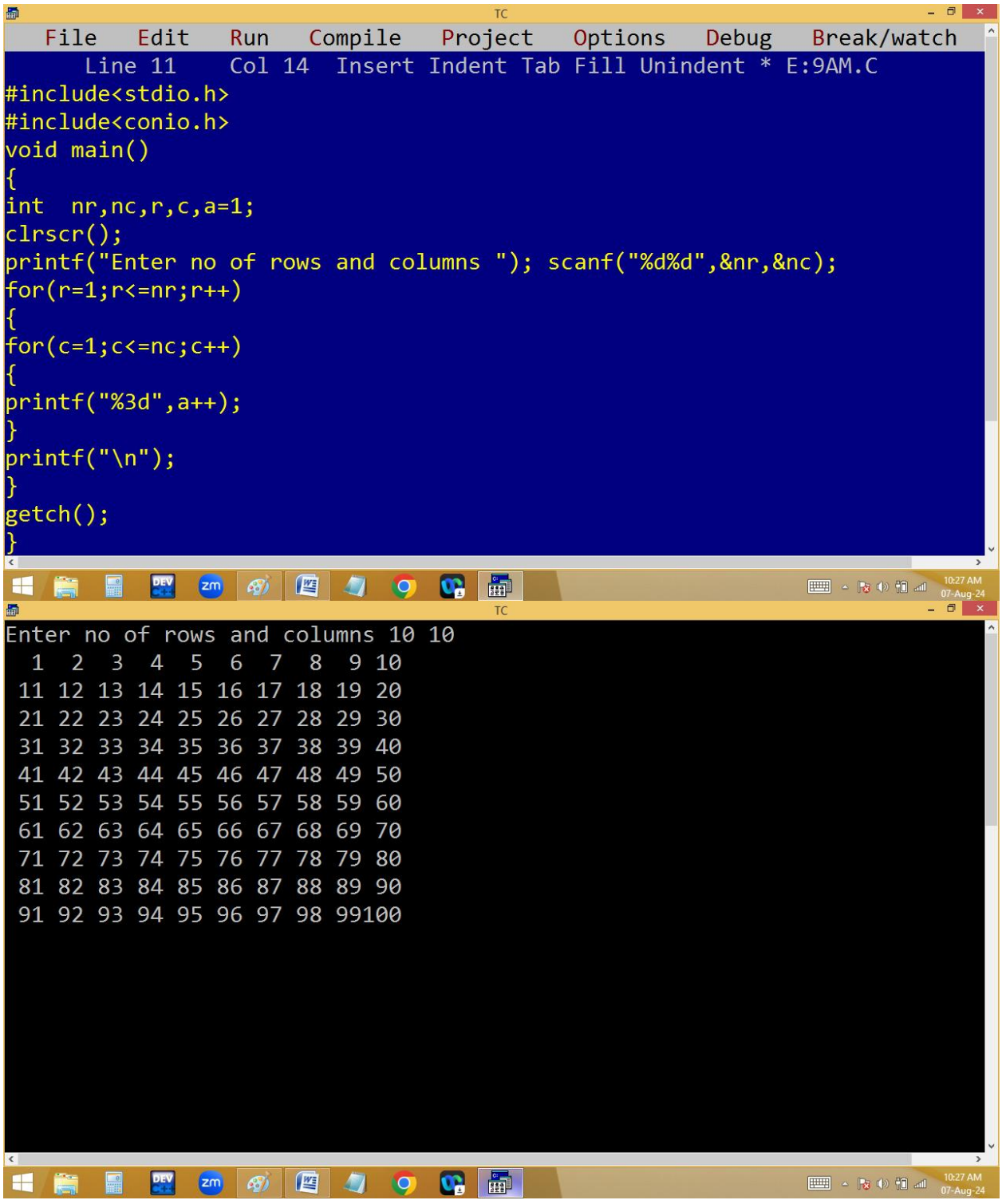

TC
Enter no of rows and columns 12 15
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

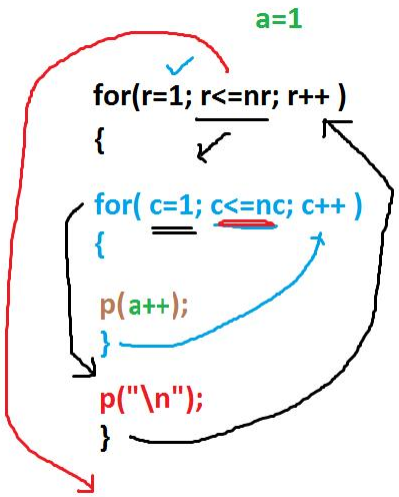

for(r=1; r<=nr; r++)
{
a=r;
for(c=1; c<=nc; c++)
{
p(a++);
}
p("\n");
}
r → a++
1 1 2 3 4
2 2 3 4 5
3 3 4 5 6
nr
3
nc
4
1 1 2 3 4
2 2 3 4 5
3 3 4 5 6
3 rows
4 columns
r<=3
c<=4
1 1 2 3 4
2 1 2 3 4
3 1 2 3 4

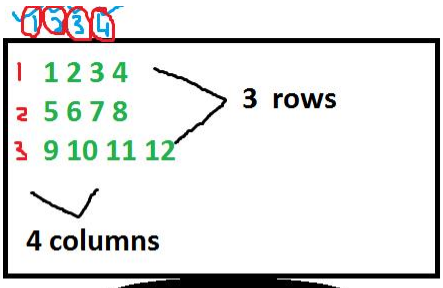
Method 2:


TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 15 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c;
clrscr();
printf("Enter no of rows and columns "); scanf("%d%d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=r;c<=nc+r-1;c++)
{
printf("%3d",c);
}
printf("\n");
}
getch();
}
TC
Enter no of rows and columns 4 5
1 2 3 4 5
2 3 4 5 6
3 4 5 6 7
4 5 6 7 8


for(r=1; r<=nr; r++)
{
a=r;
for(c=1; c<=nc; c++)
{
p(a++);
}
p("\n");
}
r
c=r to nc+r-1
1
1 to 4+1-1=4
2
2 to 4+2-1=5
3
3 to 4+3-1=6
nr
3
nc
4
1 2 3 4
1 1 2 3 4
2 2 3 4 5
3 3 4 5 6
3 rows
4 columns
r<=3
c<=4
1
2
3
4
1 2 3 4 5
1 2 3 4 5
1 2 3 4 5


TC
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 14 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int nr,nc,r,c,a=1;
clrscr();
printf("Enter no of rows and columns "); scanf("%d%d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
printf("%3d",a++);
}
printf("\n");
}
getch();
}
TC
Enter no of rows and columns 10 10
1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20
21 22 23 24 25 26 27 28 29 30
31 32 33 34 35 36 37 38 39 40
41 42 43 44 45 46 47 48 49 50
51 52 53 54 55 56 57 58 59 60
61 62 63 64 65 66 67 68 69 70
71 72 73 74 75 76 77 78 79 80
81 82 83 84 85 86 87 88 89 90
91 92 93 94 95 96 97 98 99100





nr / 3 nc / 4

r<=3 c<=4

1 | 1 2 3 4 5
2 | 1 2 3 4 5
3 | 1 2 3 4 5
4

TC

File Edit Run Compile Project Options Debug Break/watch

Line 12 Col 53 Insert Indent Tab Fill Unindent * E:9AM.C

```c
#include<stdio.h>
#include<conio.h>
void main()
{
int  nr,nc,r,c,a=0;
clrscr();
printf("Enter no of rows and columns "); scanf("%d%d",&nr,&nc);
for(r=1;r<=nr;r++)
{
for(c=1;c<=nc;c++)
{
if(r%2==0)printf("%3d",a--); else printf("%3d",++a);
}
printf("\n");
}
getch();
}
```

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TC

```
Enter no of rows and columns 10 20
  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20
 20 19 18 17 16 15 14 13 12 11 10  9  8  7  6  5  4  3  2  1
  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20
 20 19 18 17 16 15 14 13 12 11 10  9  8  7  6  5  4  3  2  1
  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20
 20 19 18 17 16 15 14 13 12 11 10  9  8  7  6  5  4  3  2  1
  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20
 20 19 18 17 16 15 14 13 12 11 10  9  8  7  6  5  4  3  2  1
  1  2  3  4  5  6  7  8  9 10 11 12 13 14 15 16 17 18 19 20
 20 19 18 17 16 15 14 13 12 11 10  9  8  7  6  5  4  3  2  1
```

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```
a=0
for(r=1; r<=nr; r++ )
{
for( c=1; c<=nc; c++ )
{
if(r%2==0) p(a--);
else  p(++a);
}
p("\n");
}
```

r
1 - odd
2 - Even
3

1 2 3 4
4 3 2 1
1 2 3 4

nr / 3 nc / 4

r<=3 c<=4

1 | 1 2 3 4 | 5
2 | 1 2 3 4 | 5
3 | 1 2 3 4 | 5
4