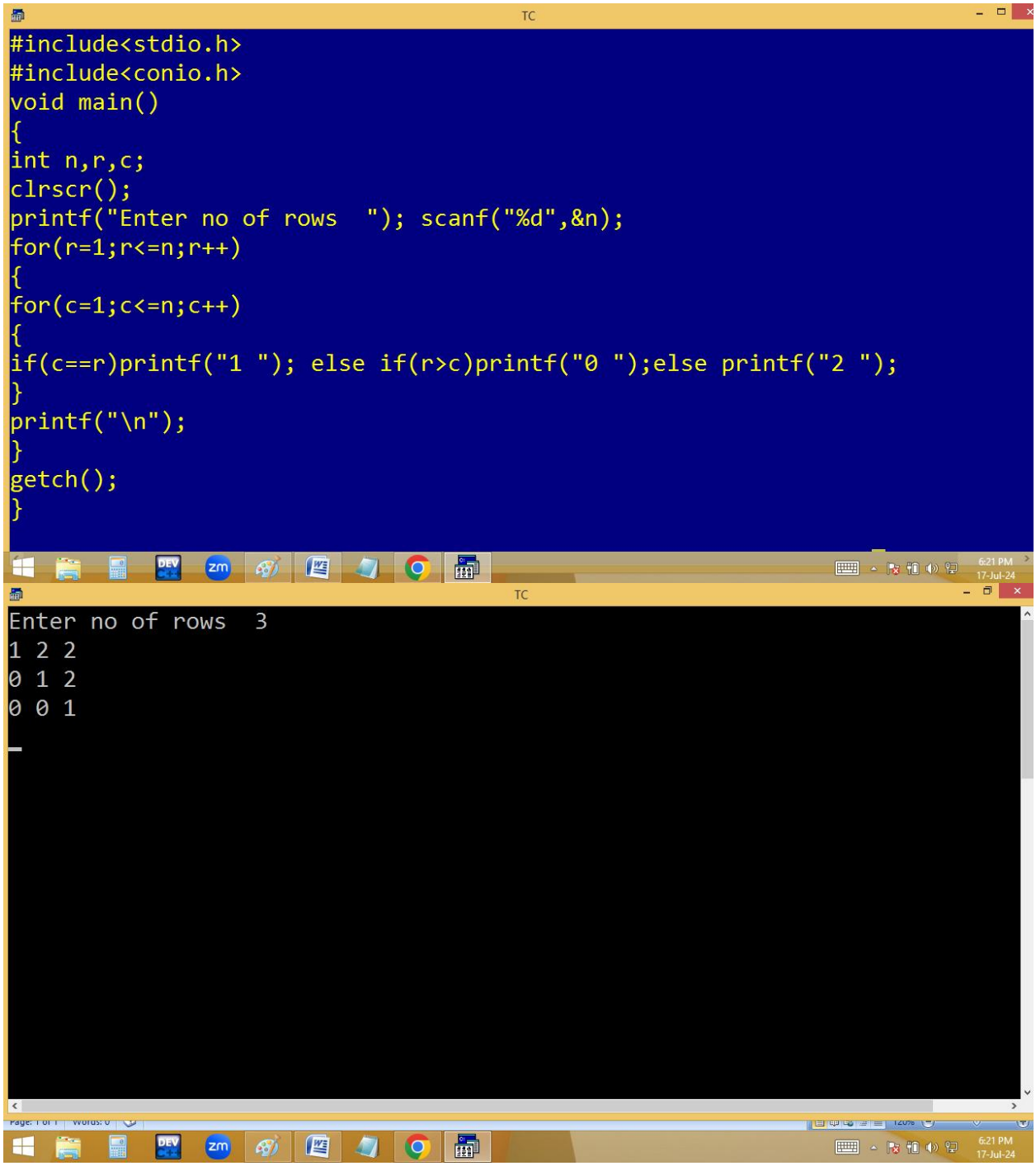
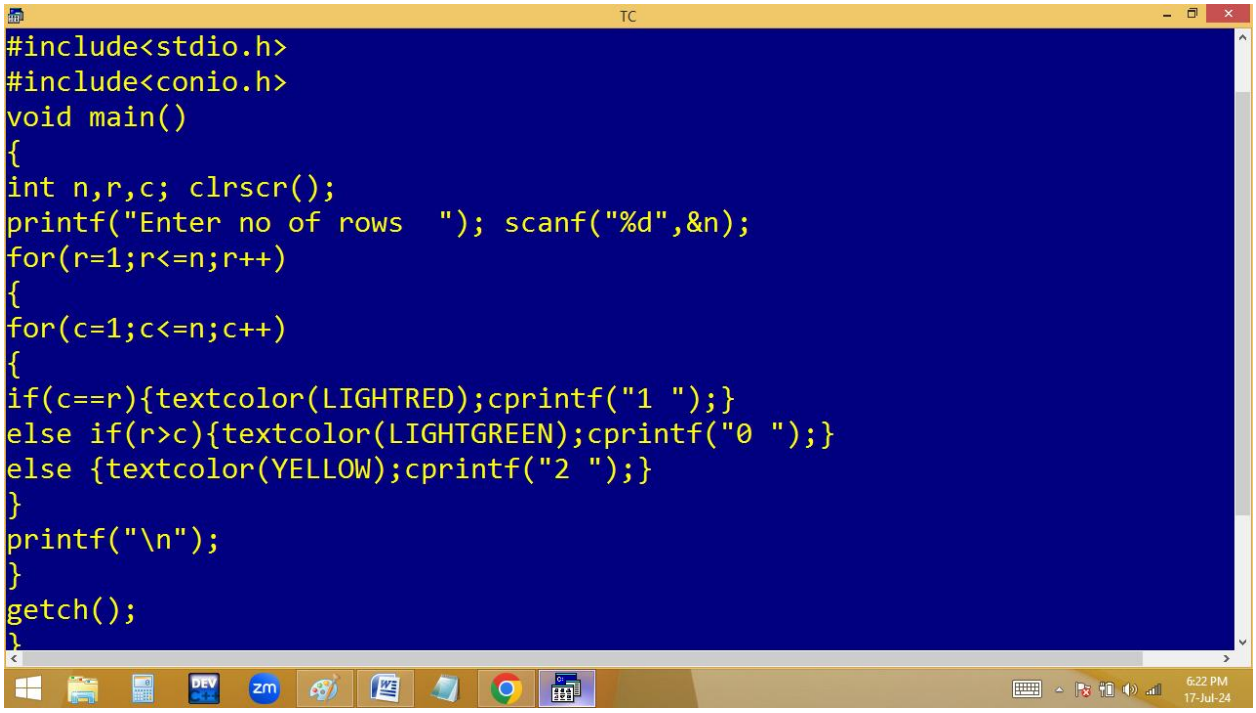
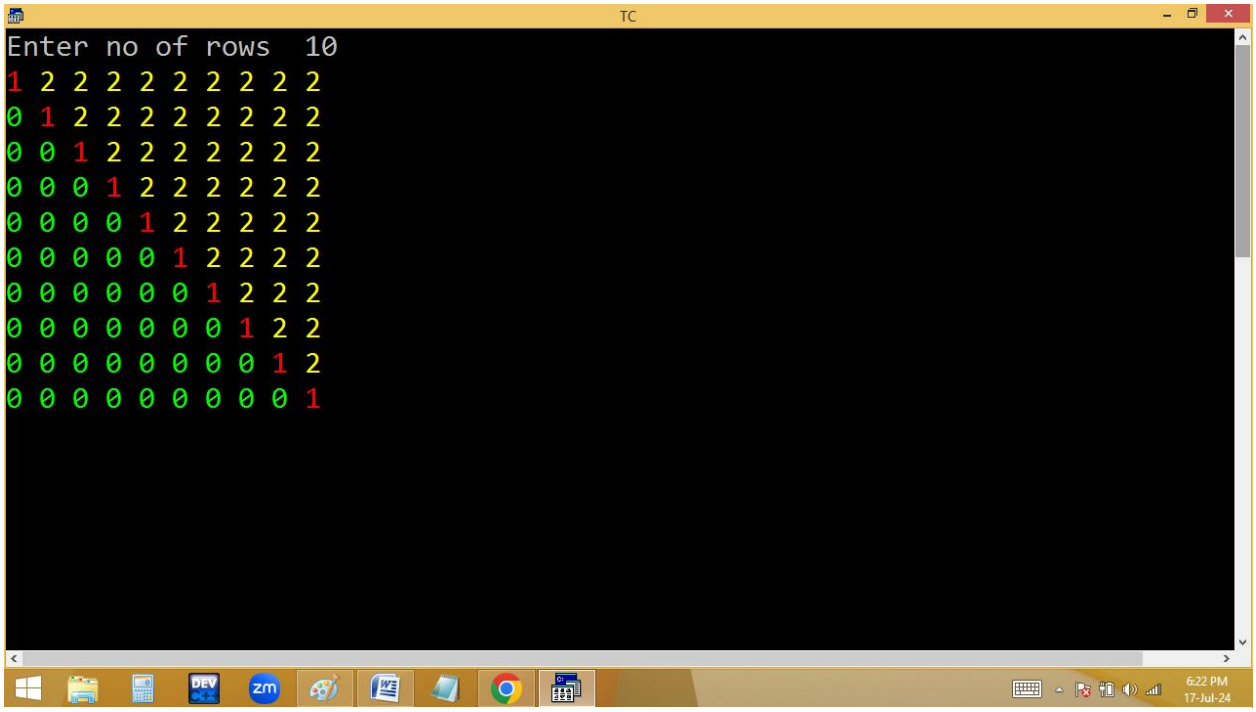
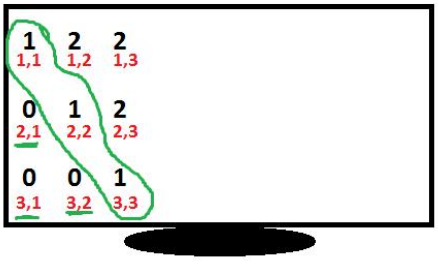
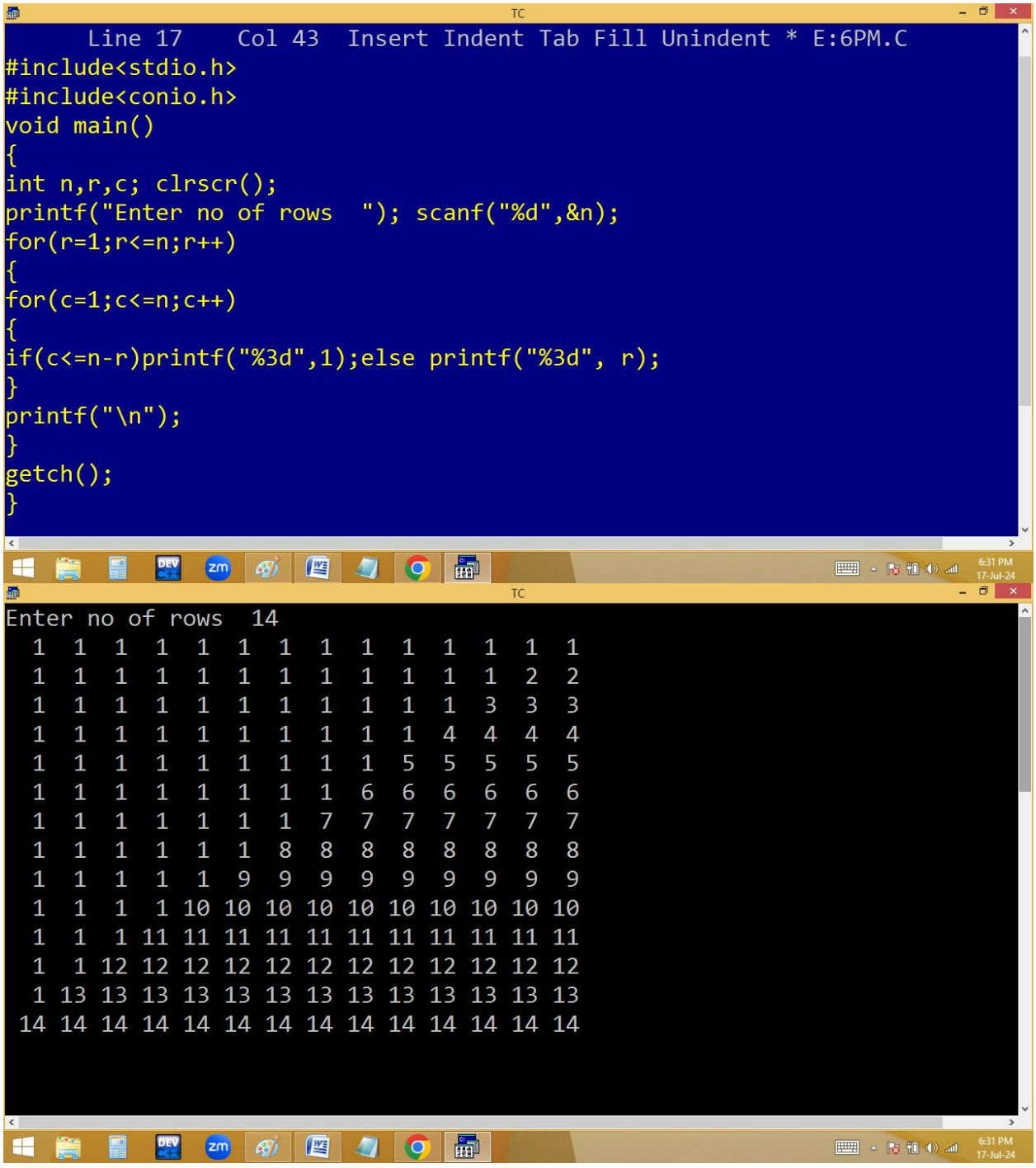

TC
#include<stdio.h>
#include<conio.h>
void main()
{
int n,r,c;
clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=1;r<=n;r++)
{
for(c=1;c<=n;c++)
{
if(c==r)printf("1 "); else if(r>c)printf("0 ");else printf("2 ");
}
printf("\n");
}
getch();
}
TC
Enter no of rows 3
1 2 2
0 1 2
0 0 1

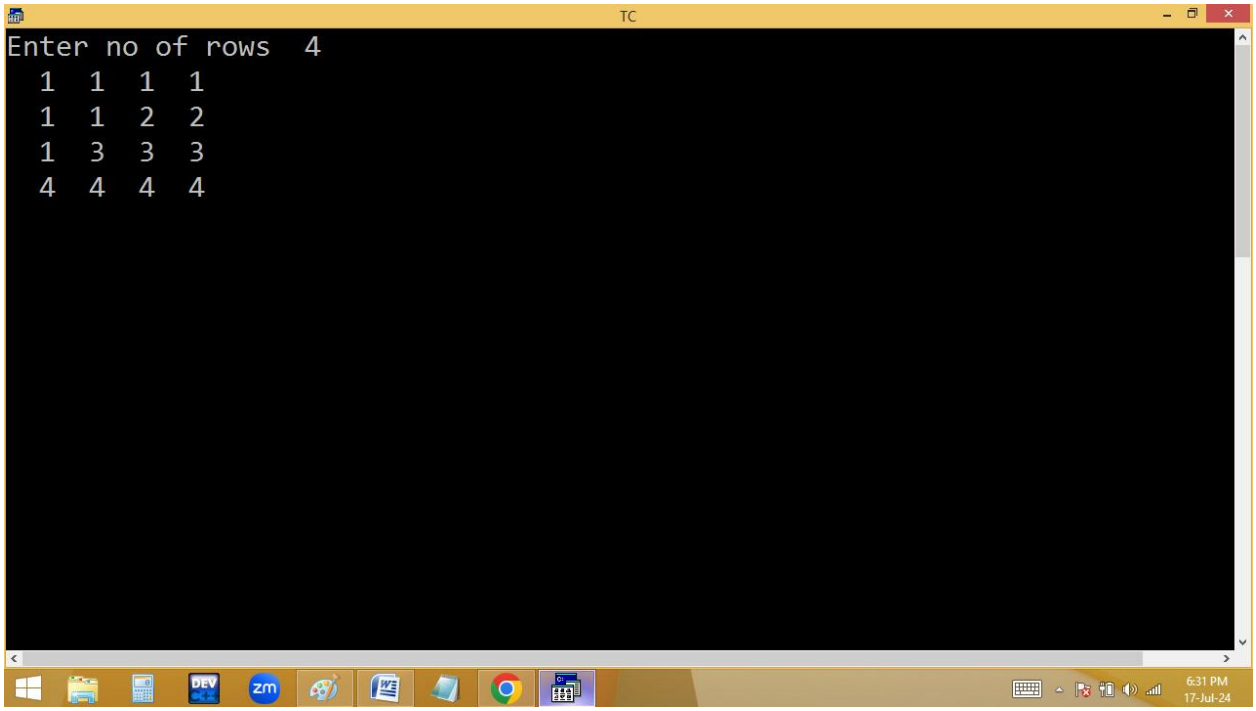

TC
#include<stdio.h>
#include<conio.h>
void main()
{
int n,r,c; clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=1;r<=n;r++)
{
for(c=1;c<=n;c++)
{
if(c==r){textcolor(LIGHTRED);cprintf("1 ");}
else if(r>c){textcolor(LIGHTGREEN);cprintf("0 ");}
else {textcolor(YELLOW);cprintf("2 ");}
}
printf("\n");
}
getch();
}
6:22 PM
17-Jul-24



if(r==c) p(1); else if(r>c) p(0); else p(2);

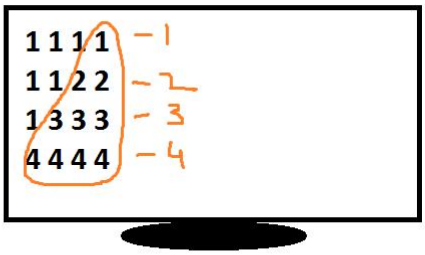


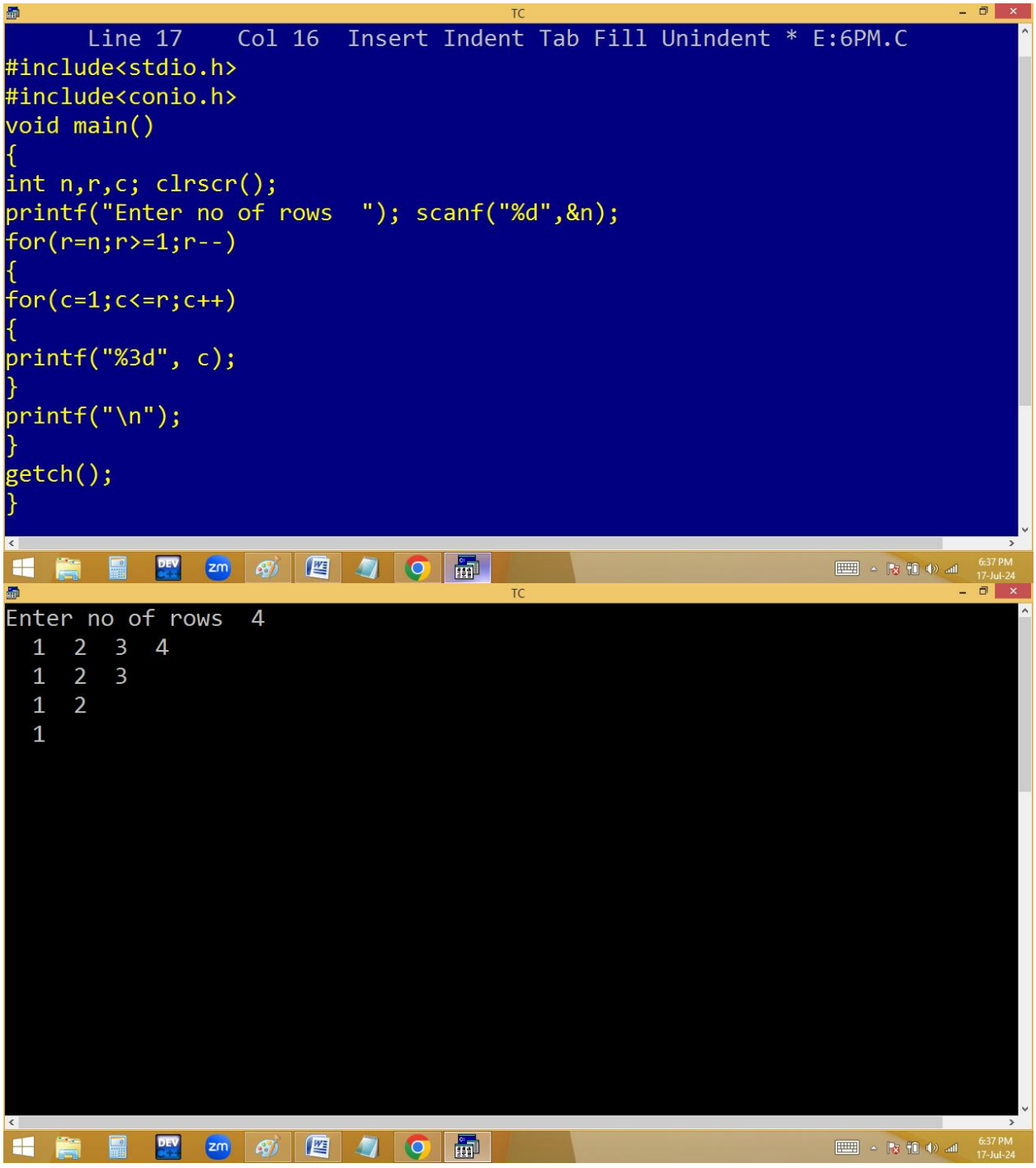

TC
Line 17 Col 43 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,r,c; clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=1;r<=n;r++)
{
for(c=1;c<=n;c++)
{
if(c<=n-r)printf("%3d",1);else printf("%3d", r);
}
printf("\n");
}
getch();
}
TC
Enter no of rows 14
1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 2 2
1 1 1 1 1 1 1 1 1 1 1 3 3 3
1 1 1 1 1 1 1 1 1 1 4 4 4 4
1 1 1 1 1 1 1 1 1 5 5 5 5 5
1 1 1 1 1 1 1 1 6 6 6 6 6 6
1 1 1 1 1 1 1 7 7 7 7 7 7 7
1 1 1 1 1 1 8 8 8 8 8 8 8 8
1 1 1 1 1 9 9 9 9 9 9 9 9 9
1 1 1 1 10 10 10 10 10 10 10 10 10 10
1 1 1 11 11 11 11 11 11 11 11 11 11 11
1 1 12 12 12 12 12 12 12 12 12 12 12 12
1 13 13 13 13 13 13 13 13 13 13 13 13 13
14 14 14 14 14 14 14 14 14 14 14 14 14 14

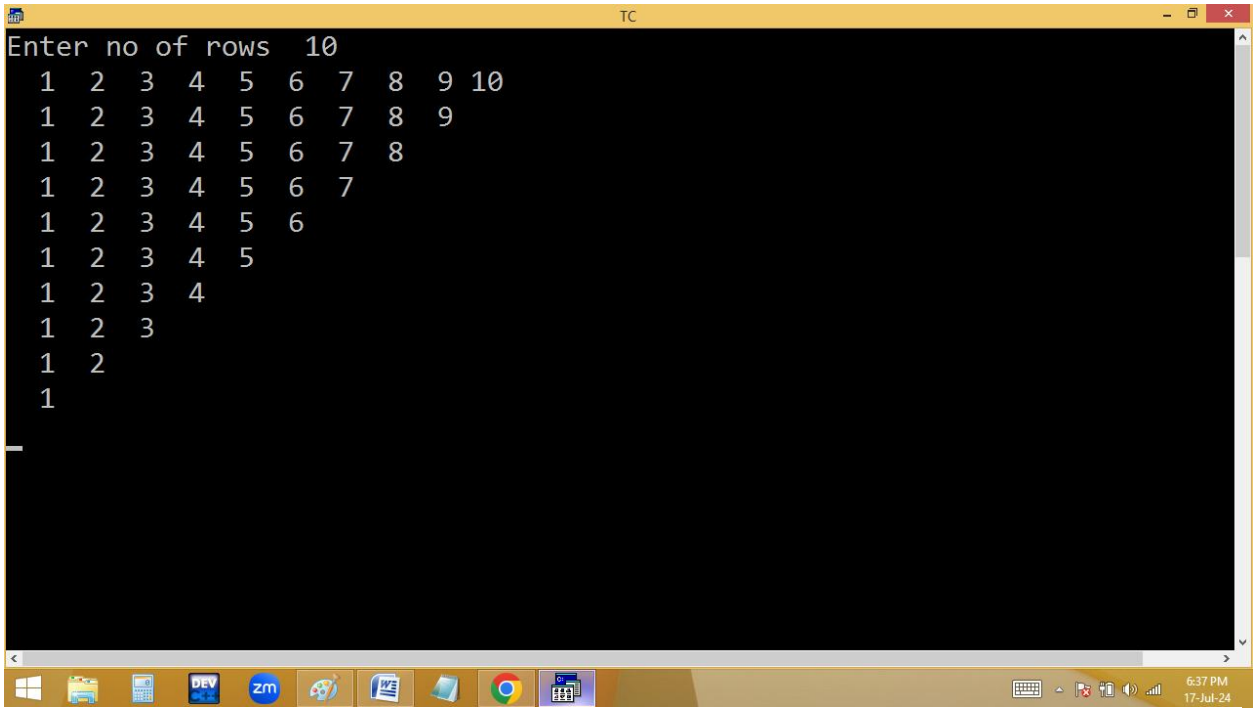



```
for(r=1;r<=4;r++)
{
for(c=1;c<=4;c++)
{
if(c<=n-r)p(1);else p(r);
}
p("\n");
}
```

n − r	1	c=1 to r
4 − 1 = 3		1 to 1 = 1
4 − 2 = 2		1 to 2 = 2
4 − 3 = 1		1 to 3 = 3
4 − 4 = 0		1 to 4 = 4




TC
Line 17 Col 16 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,r,c; clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=n;r>=1;r--)
{
for(c=1;c<=r;c++)
{
printf("%3d", c);
}
printf("\n");
}
getch();
}
TC
Enter no of rows 4
1 2 3 4
1 2 3
1 2
1




```
for(r=n; r>=1;r--)
{
for( c=1; c<=r; c++)p(c);
p("\n");
}
```

c = 1 to r r = n

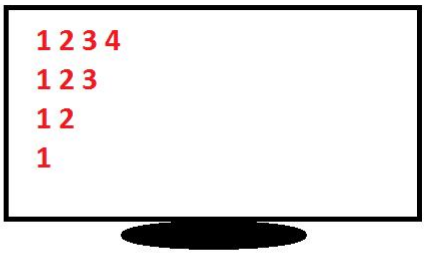
1 to 4

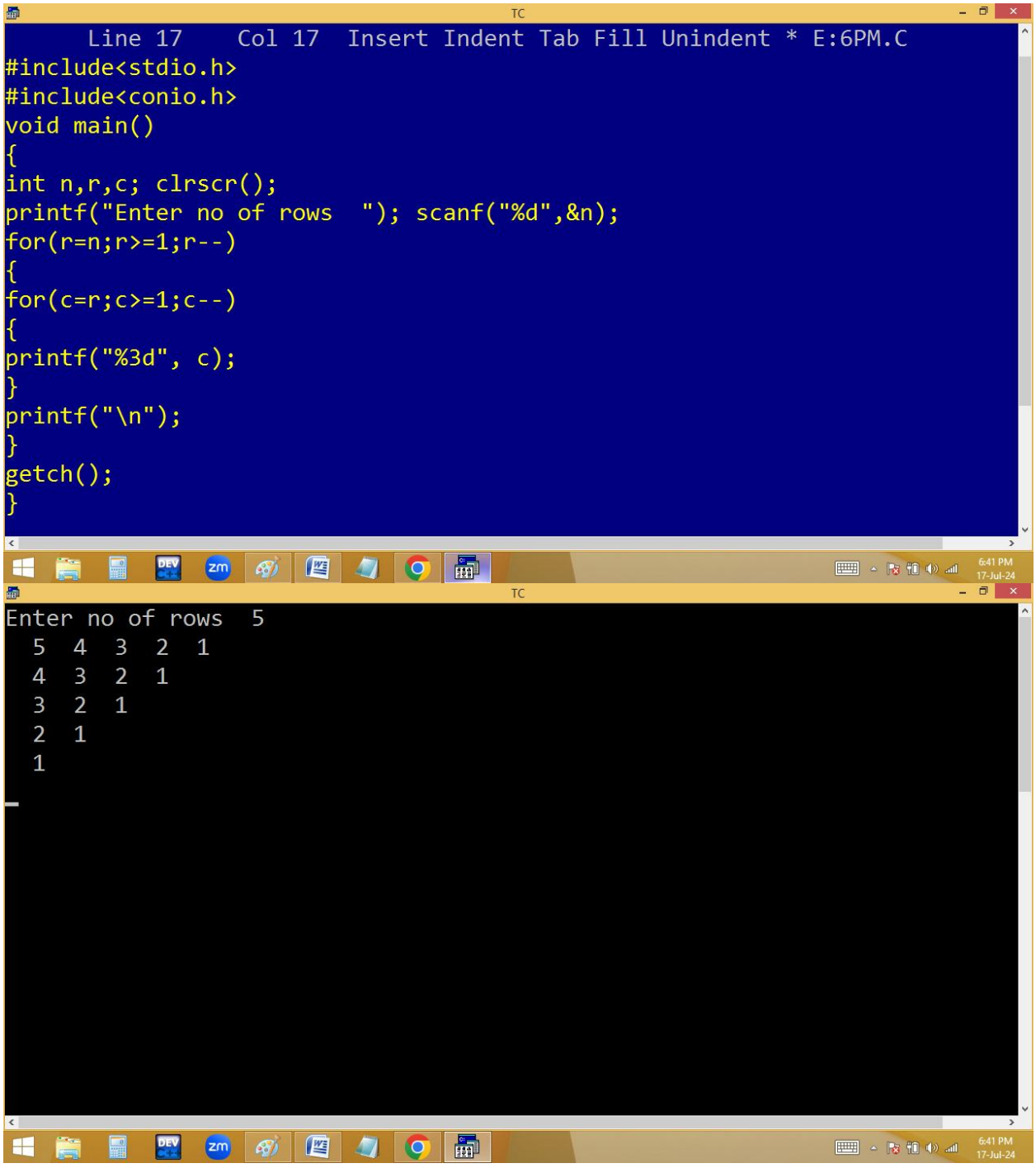
1 to 3

1 to 2

1 to 1

n
4




TC
Line 17 Col 17 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,r,c; clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=n;r>=1;r--)
{
for(c=r;c>=1;c--)
{
printf("%3d", c);
}
printf("\n");
}
getch();
}
TC
Enter no of rows 5
5 4 3 2 1
4 3 2 1
3 2 1
2 1
1

```
for(r=n; r>=1;r--)
{
for(c=r;c>=1;c--    )p(c);
p("\n");
}
```

c = r-- = n

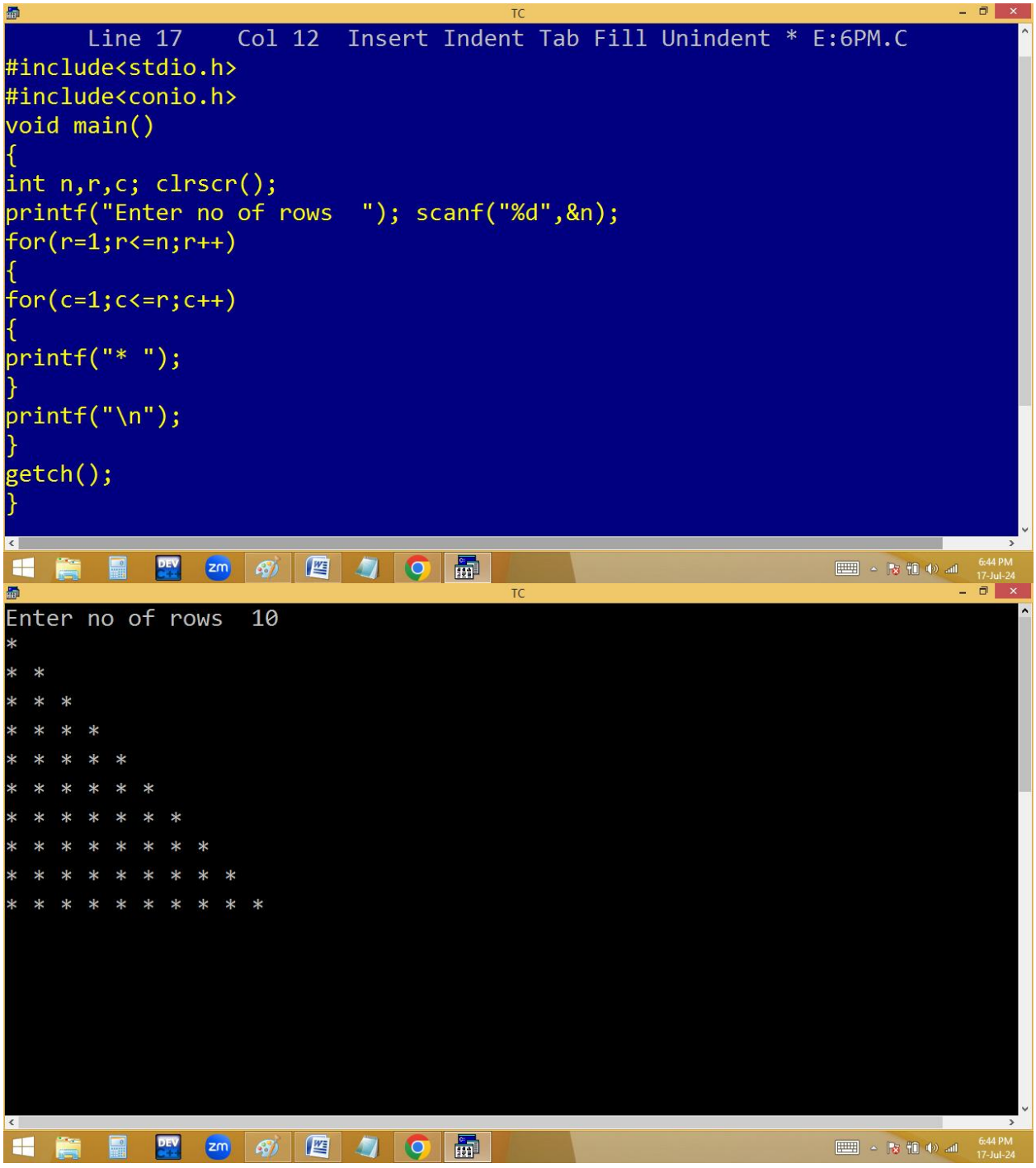
4 to 1 4

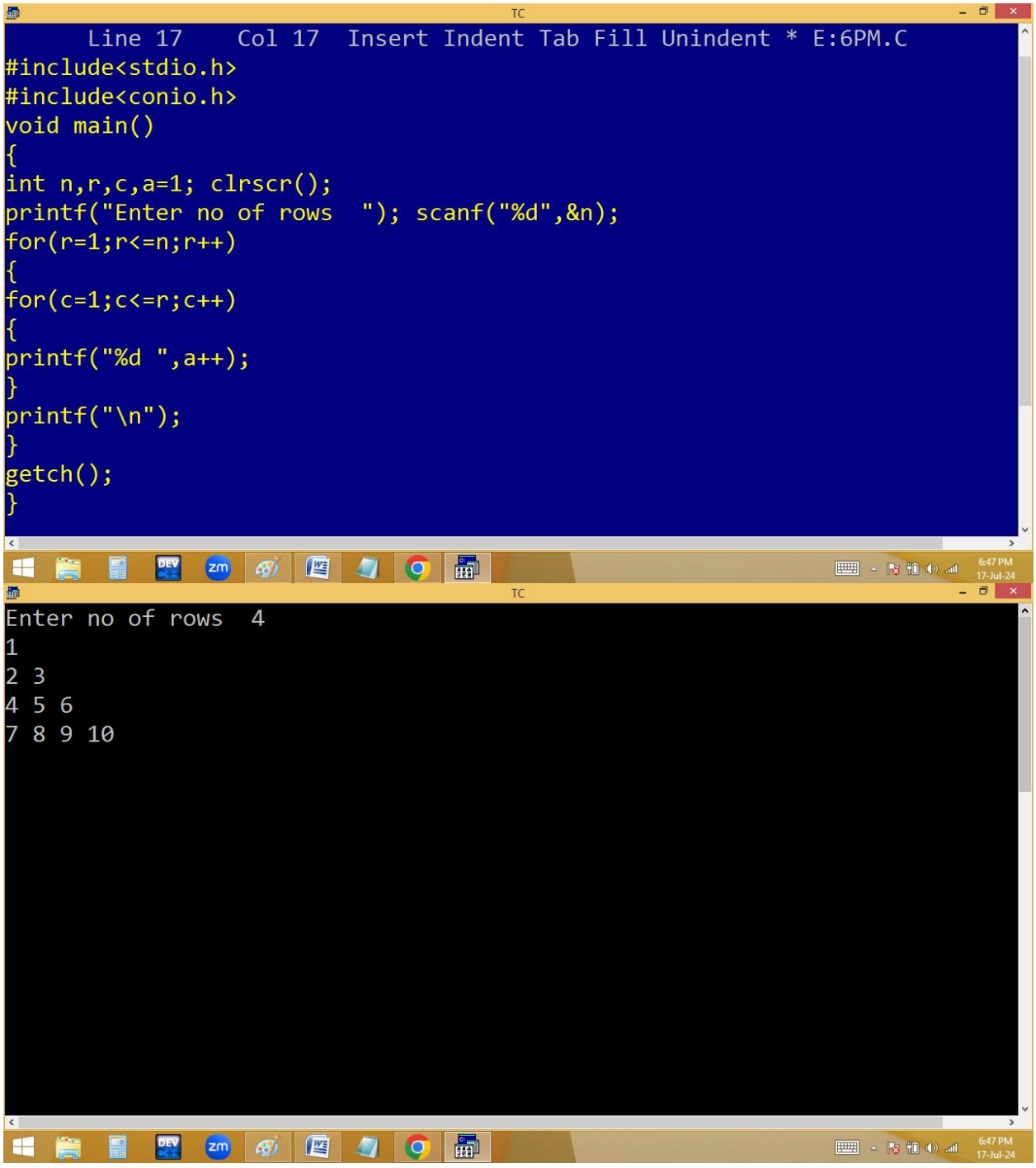
3 to 1 3

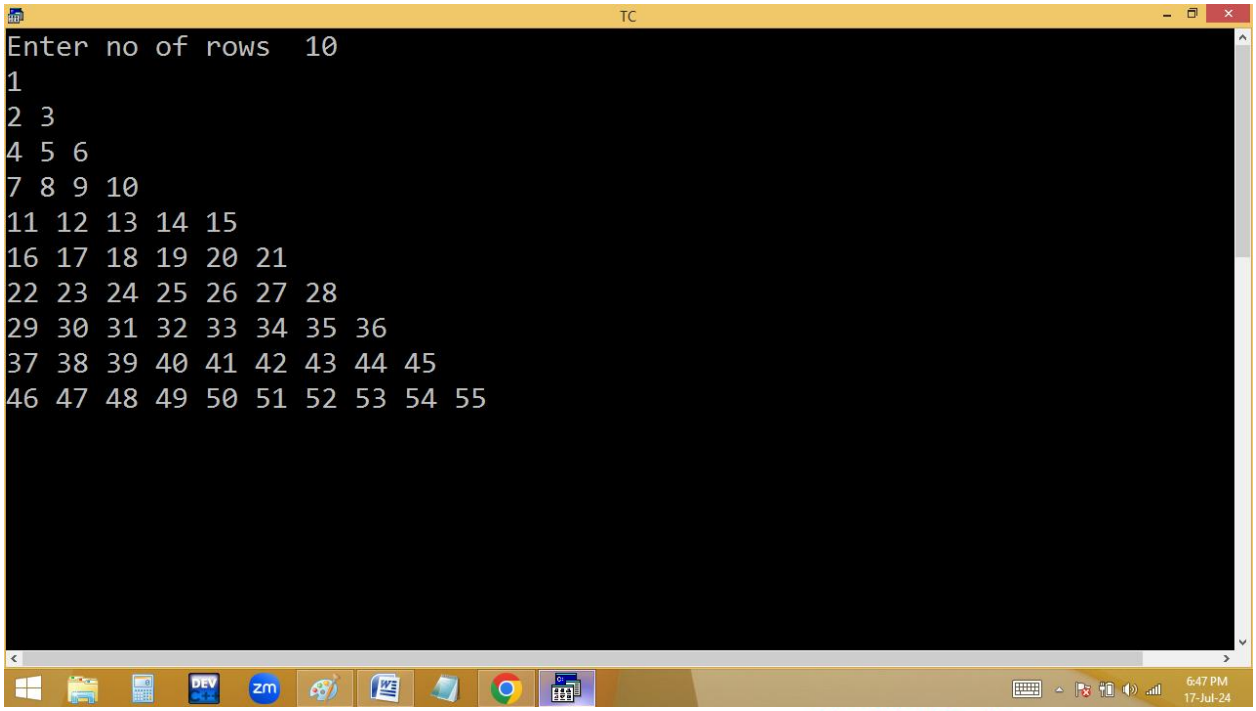
2 to 1 2

1 to 1 1

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


TC
Line 17 Col 12 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,r,c; clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=1;r<=n;r++)
{
for(c=1;c<=r;c++)
{
printf("* ");
}
printf("\n");
}
getch();
}
TC
Enter no of rows 10
*
* *
* * *
* * * *
* * * * *
* * * * * *
* * * * * * *
* * * * * * * *
* * * * * * * * *
* * * * * * * * * *


TC
Line 17 Col 17 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,r,c,a=1; clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=1;r<=n;r++)
{
for(c=1;c<=r;c++)
{
printf("%d ",a++);
}
printf("\n");
}
getch();
}
TC
Enter no of rows 4
1
2 3
4 5 6
7 8 9 10




```
    a=1
for( r=1; r<=n; r++ )
{
for( c=1; c<=r; c++)p( a++ );
p("\n");
}
```

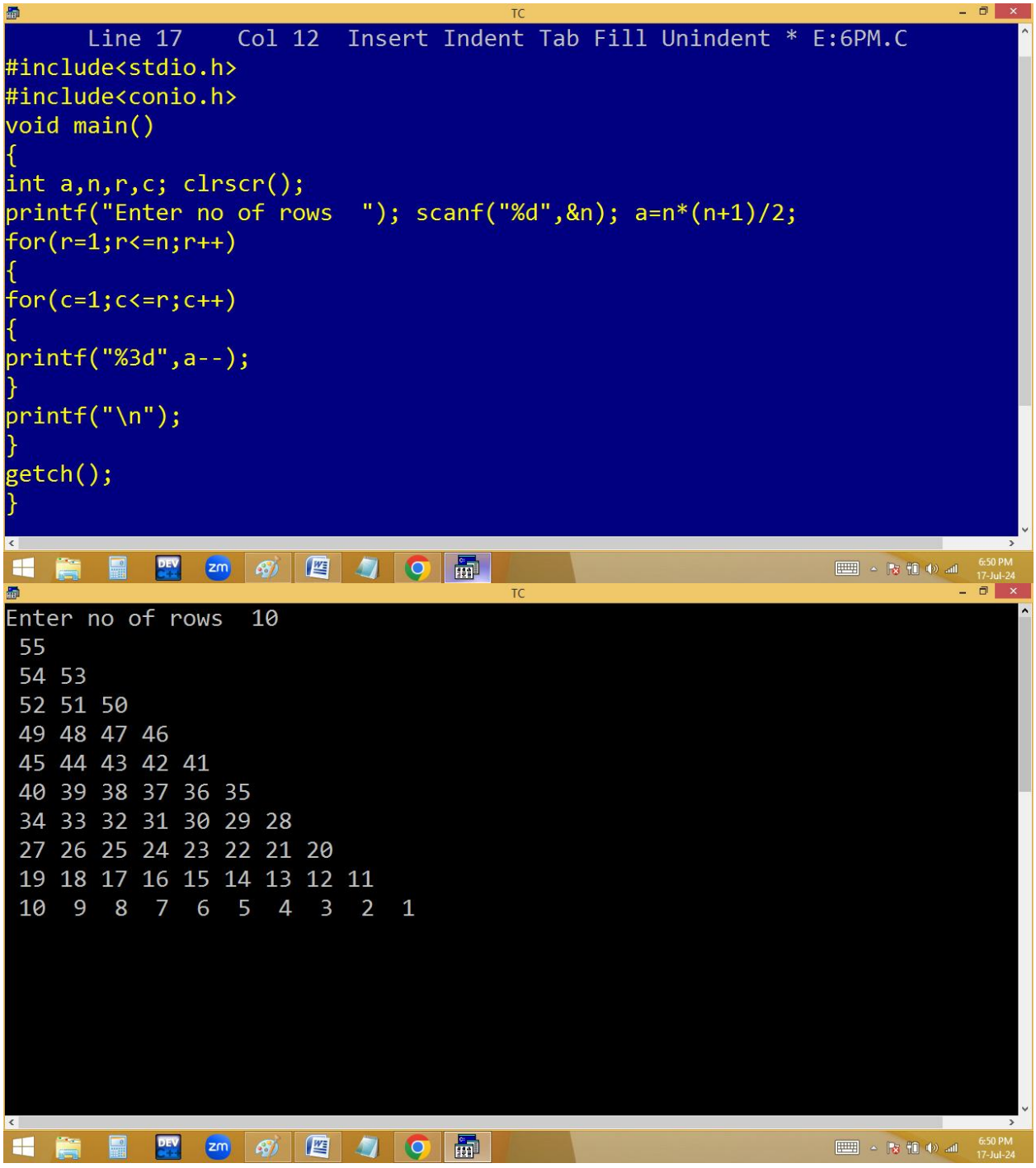
n = 4

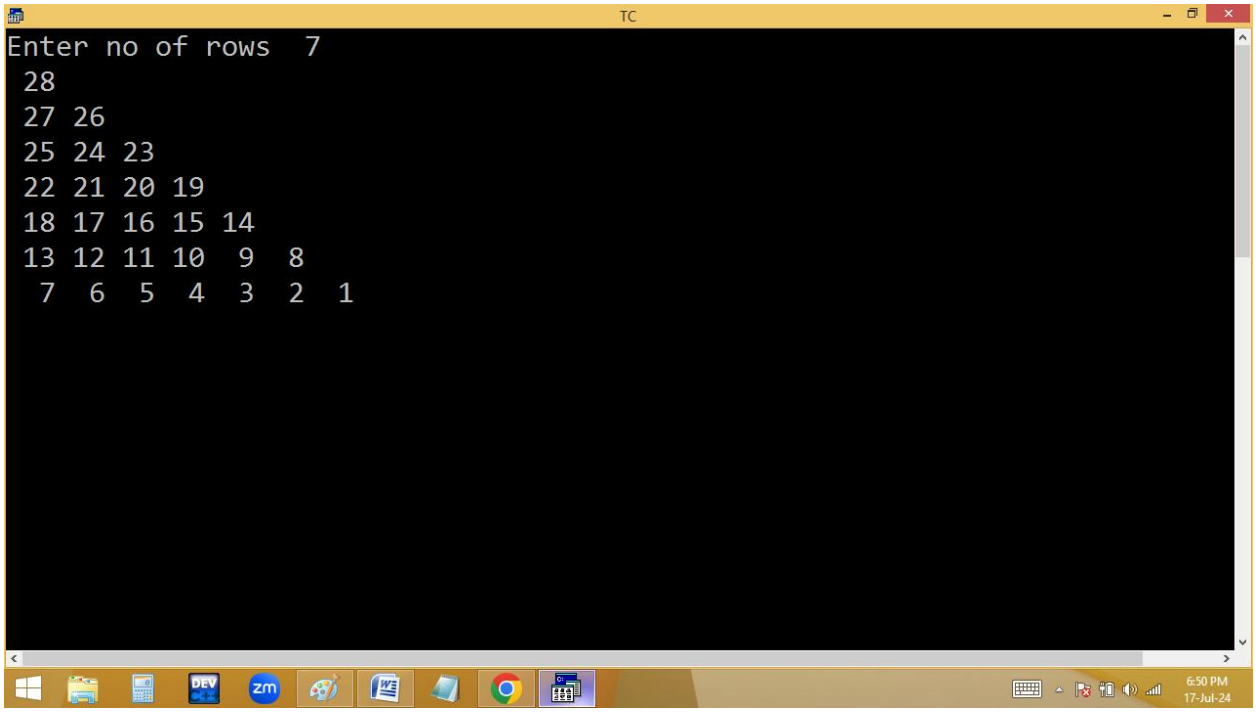
r = 1 to 4

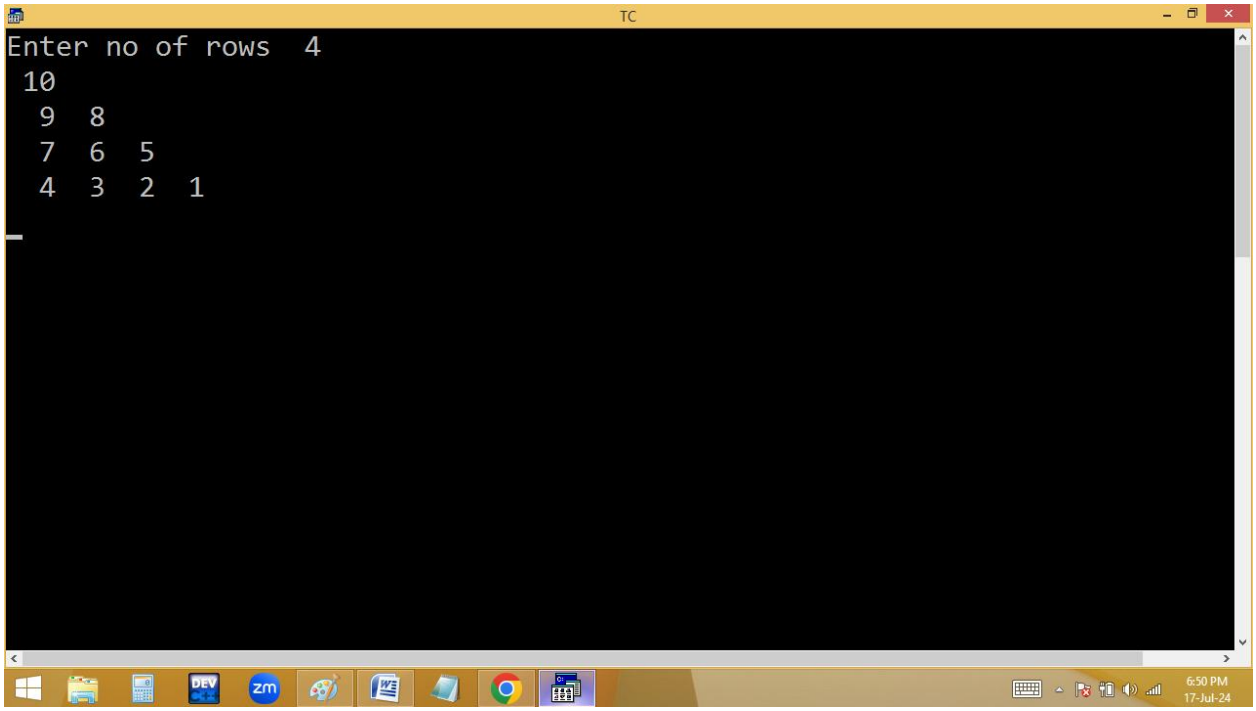
r	c = 1 to r
1	1 to 1
2	1 to 2
3	1 to 3
4	1 to 4

Floyd's triangle

```
1
2 3
4 5 6
7 8 9 10
```


TC
Line 17 Col 12 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,n,r,c; clrscr();
printf("Enter no of rows "); scanf("%d",&n); a=n*(n+1)/2;
for(r=1;r<=n;r++)
{
for(c=1;c<=r;c++)
{
printf("%3d",a--);
}
printf("\n");
}
getch();
}
TC
Enter no of rows 10
55
54 53
52 51 50
49 48 47 46
45 44 43 42 41
40 39 38 37 36 35
34 33 32 31 30 29 28
27 26 25 24 23 22 21 20
19 18 17 16 15 14 13 12 11
10 9 8 7 6 5 4 3 2 1


TC
Enter no of rows 7
 28
 27 26
 25 24 23
 22 21 20 19
 18 17 16 15 14
 13 12 11 10 9 8
  7 6 5 4 3 2 1
6:50 PM
17-Jul-24




```
for( r=1; r<=n; r++ )
{
for( c=1; c<=r; c++)p(*);
p("\n");
}
```

n=3
a=3*(3+1)/2=6
6
5 4
3 2 1

n=4
a=4*(4+1)/2=10
10
9 8
7 6 5
4 3 2 1

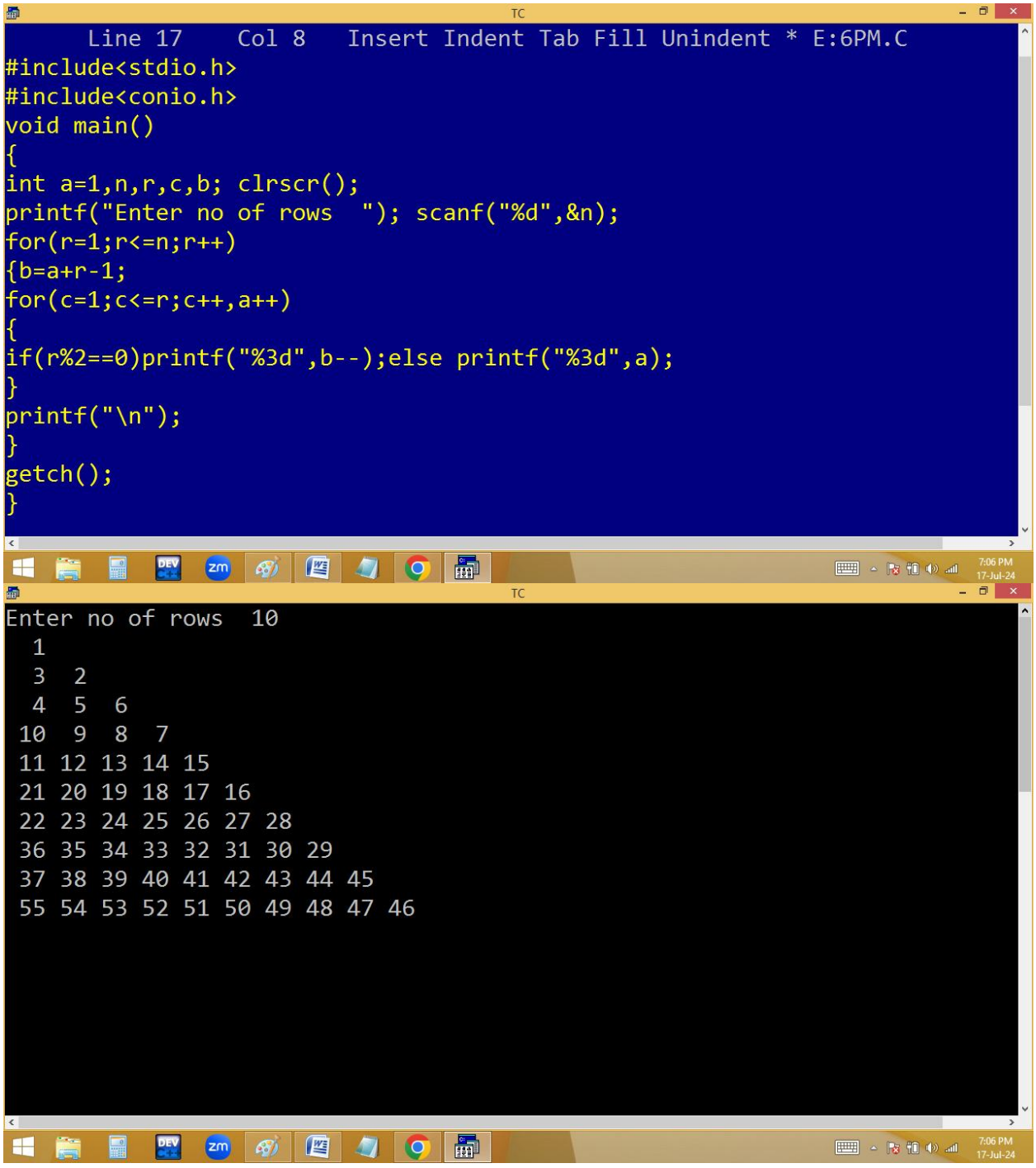
n = 4

r = 1 2 3 4

c = 1 to r

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

```
10
9 8
7 6 5
4 3 2 1
```


TC
Line 17 Col 8 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=1,n,r,c,b; clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=1;r<=n;r++)
{b=a+r-1;
for(c=1;c<=r;c++,a++)
{
if(r%2==0)printf("%3d",b--);else printf("%3d",a);
}
printf("\n");
}
getch();
}
TC
Enter no of rows 10
1
3 2
4 5 6
10 9 8 7
11 12 13 14 15
21 20 19 18 17 16
22 23 24 25 26 27 28
36 35 34 33 32 31 30 29
37 38 39 40 41 42 43 44 45
55 54 53 52 51 50 49 48 47 46

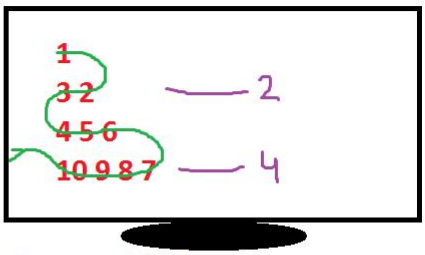
```
for( r=1; r<=n; r++ )
{  b=a+r-1;
for( c=1; c<=r; c++ ,a++)
if(r%2==0)p( b-- );else p( a );

p("\n");
}
```

n = 4

r: 1 2 3 4

a++: 1 2 3 4 5 6 7



r=1: 1

r=2: 3 2

r=3: 4 5 6

r=4: 10 9 8 7

b = a+r-1 (b--)

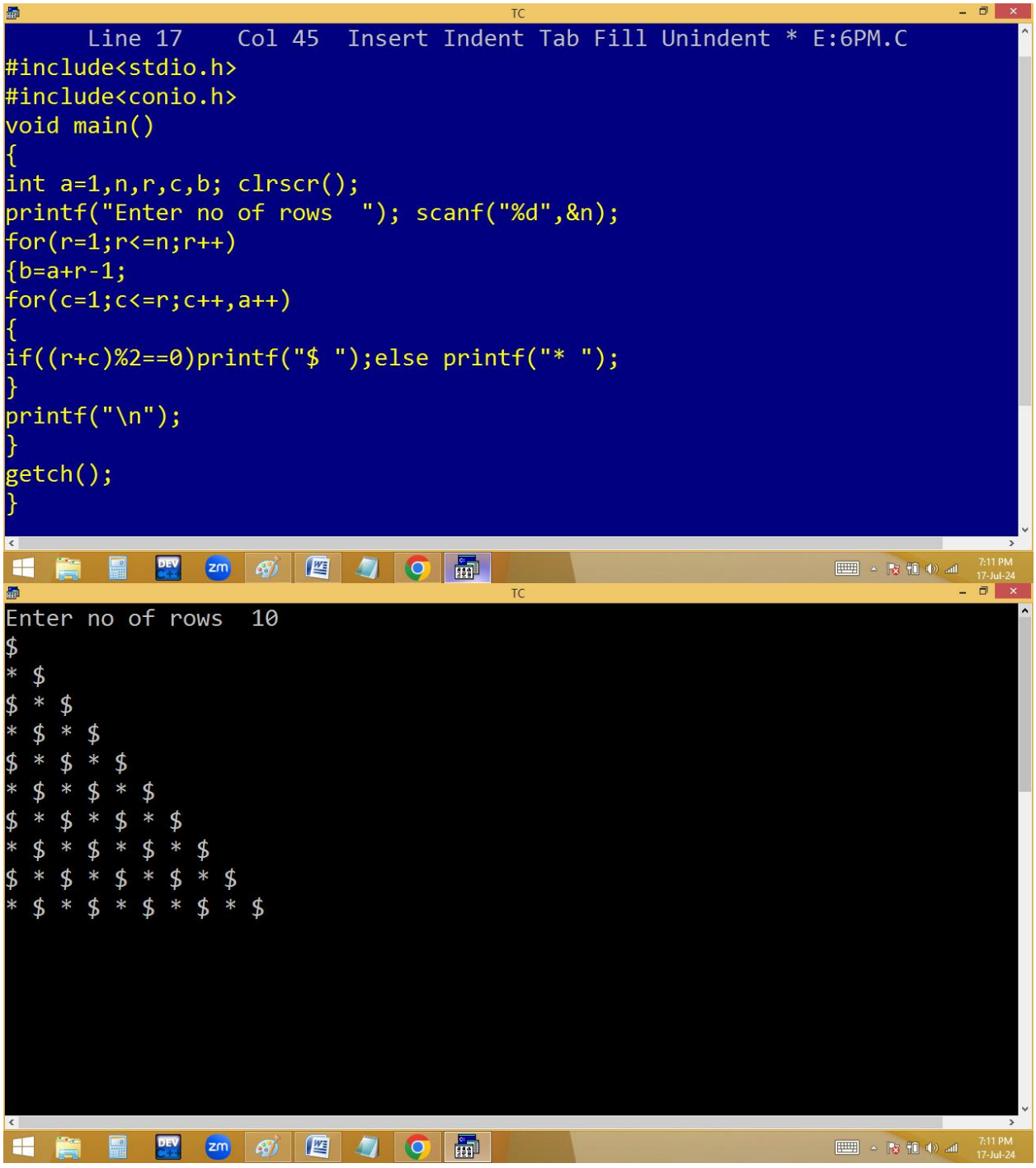
4+7-1=10

r + a++

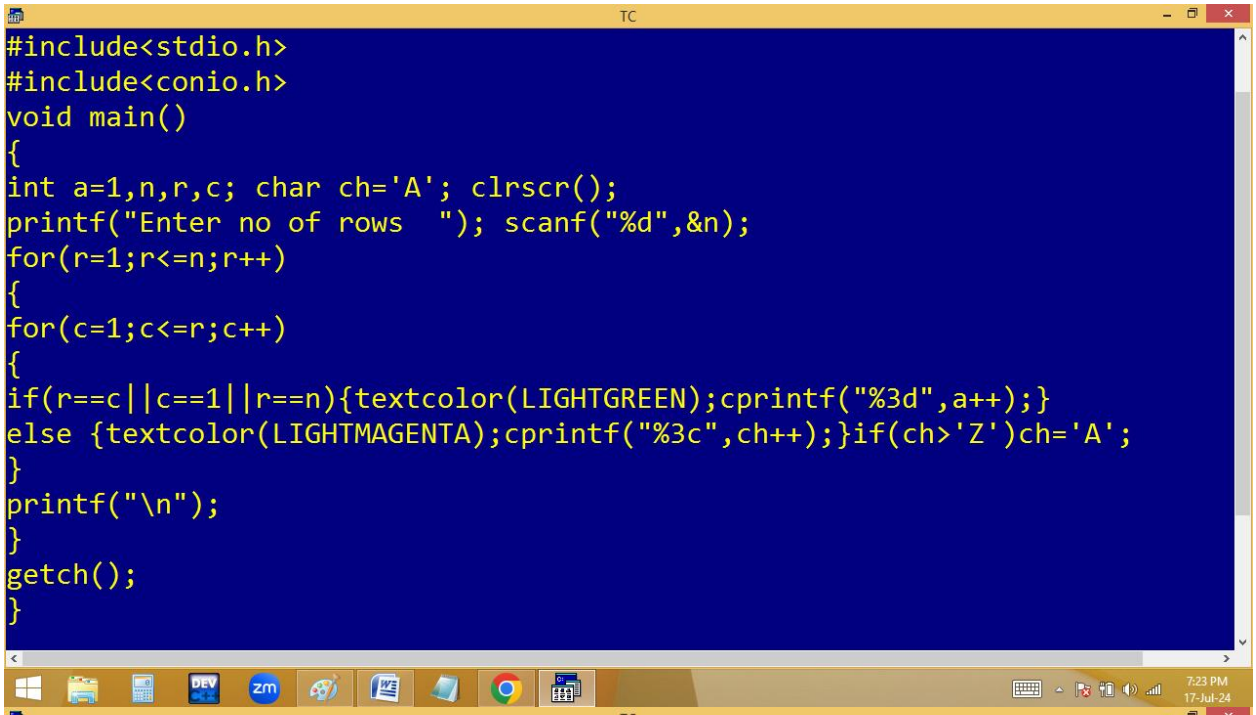
r: 1 2 3 4

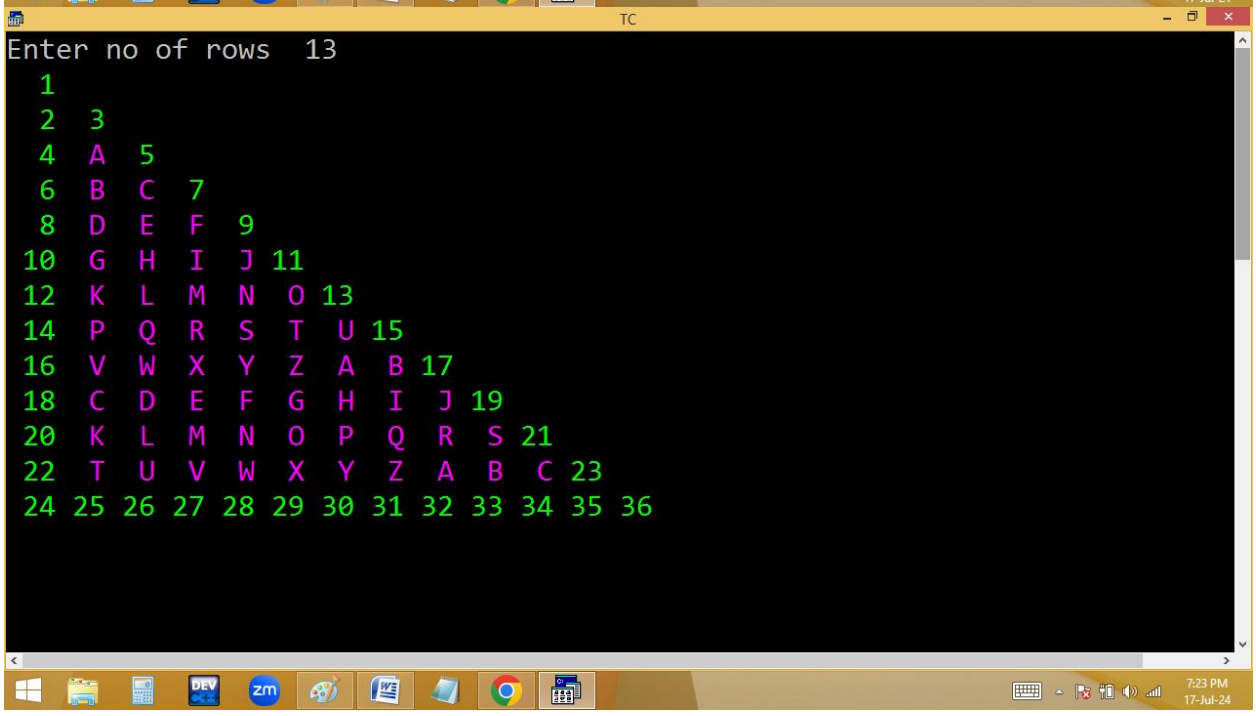
a++: 1 2 3 4 5 6 7

1
3 2
4 5 6
10 9 8 7

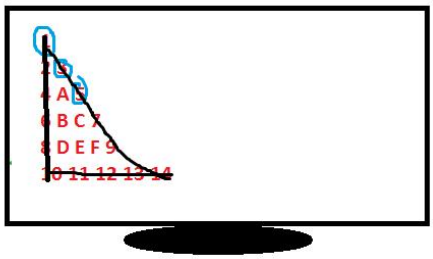

TC
Line 17 Col 45 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=1,n,r,c,b; clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=1;r<=n;r++)
{b=a+r-1;
for(c=1;c<=r;c++,a++)
{
if((r+c)%2==0)printf("$ ");else printf("* ");
}
printf("\n");
}
getch();
}
TC
Enter no of rows 10
$
* $
$ * $
* $ * $
$ * $ * $
* $ * $ * $
$ * $ * $ * $
* $ * $ * $ * $
$ * $ * $ * $ * $
* $ * $ * $ * $ * $


$
1+1
*
$
2+1
2+2
$
*
$
3+1
3+2
3+3


TC
#include<stdio.h>
#include<conio.h>
void main()
{
int a=1,n,r,c; char ch='A'; clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=1;r<=n;r++)
{
for(c=1;c<=r;c++)
{
if(r==c||c==1||r==n){textcolor(LIGHTGREEN);cprintf("%3d",a++);}
else {textcolor(LIGHTMAGENTA);cprintf("%3c",ch++);}if(ch>'Z')ch='A';
}
printf("\n");
}
getch();
}

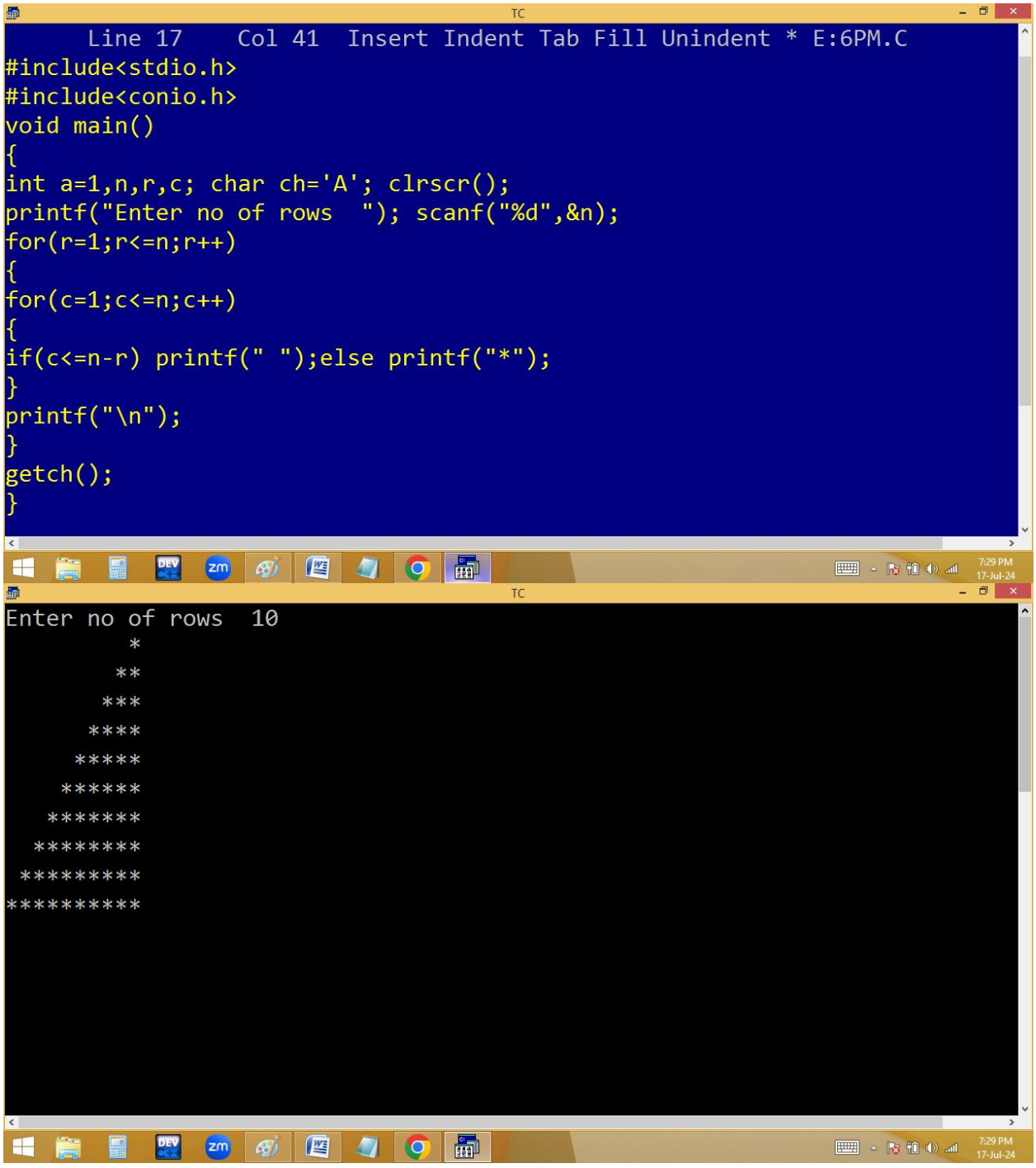

TC
Enter no of rows 13
1
2 3
4 A 5
6 B C 7
8 D E F 9
10 G H I J 11
12 K L M N O 13
14 P Q R S T U 15
16 V W X Y Z A B 17
18 C D E F G H I J 19
20 K L M N O P Q R S 21
22 T U V W X Y Z A B C 23
24 25 26 27 28 29 30 31 32 33 34 35 36

```
a=1;  char ch='A';
for( r=1; r<=n;r++ )
{
for(c=1;c<=r;c++)
if(c==1||c==r|n==r) p(a++);else p(ch++);
p("\n");
}
```



n r

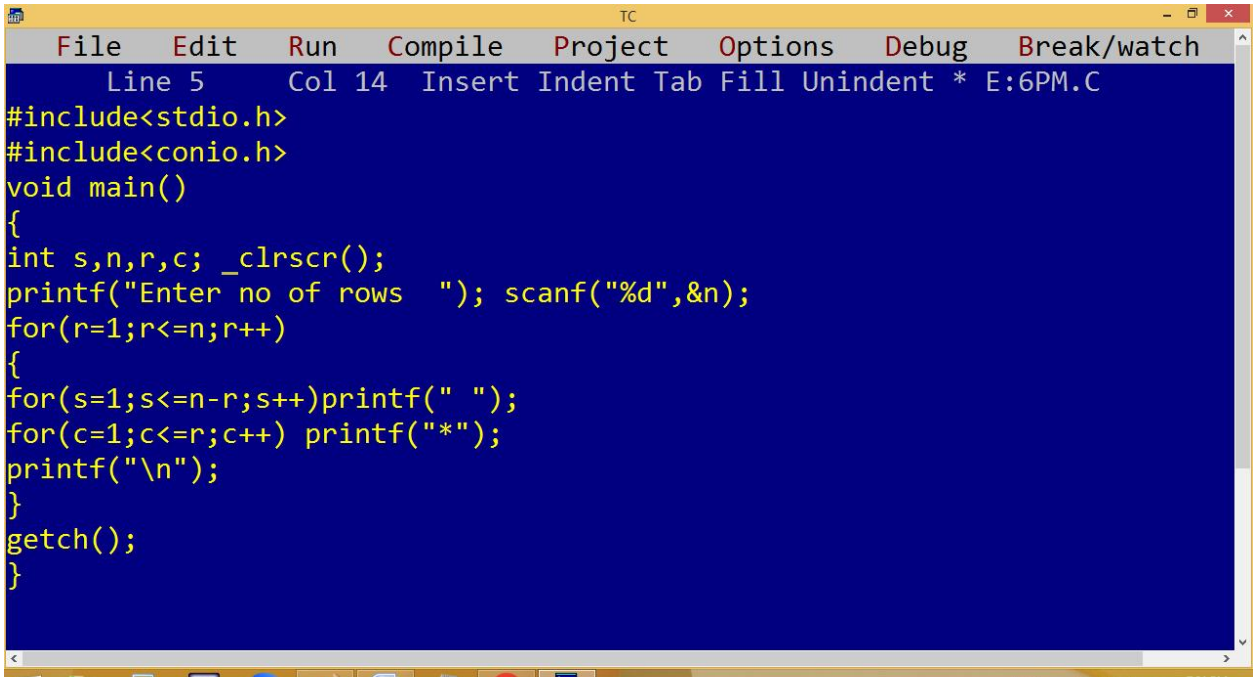
6 = 6

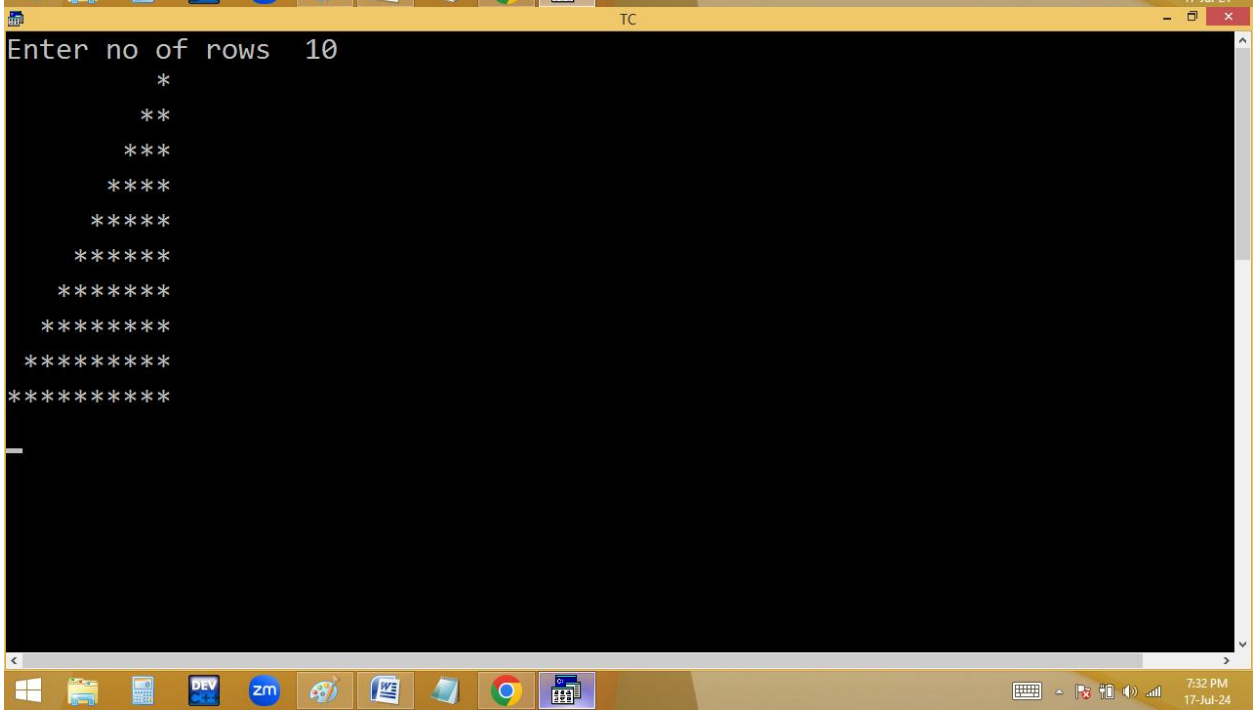

TC
Line 17 Col 41 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=1,n,r,c; char ch='A'; clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=1;r<=n;r++)
{
for(c=1;c<=n;c++)
{
if(c<=n-r) printf(" ");else printf("*");
}
printf("\n");
}
getch();
}
7:29 PM
17-Jul-24
TC
Enter no of rows 10
*
**
***
****
*****
******
****
****
****
****
7:29 PM
17-Jul-24

```
for( r=1; r<=n;r++ )
{
for(c=1;c<=n;c++)
if(c<=n-r)p(" ");else p(*);
p("\n");
}
```

n	r	s	c = 1tor
4	1	3	1
4	2	2	2
4	3	1	3
4	4	0	4

n	r
6	6


TC
File Edit Run Compile Project Options Debug Break/watch
Line 5 Col 14 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int s,n,r,c; _clrscr();
printf("Enter no of rows "); scanf("%d",&n);
for(r=1;r<=n;r++)
{
for(s=1;s<=n-r;s++)printf(" ");
for(c=1;c<=r;c++) printf("*");
printf("\n");
}
getch();
}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