Printing the given table:

9^{th} table

9*1=9

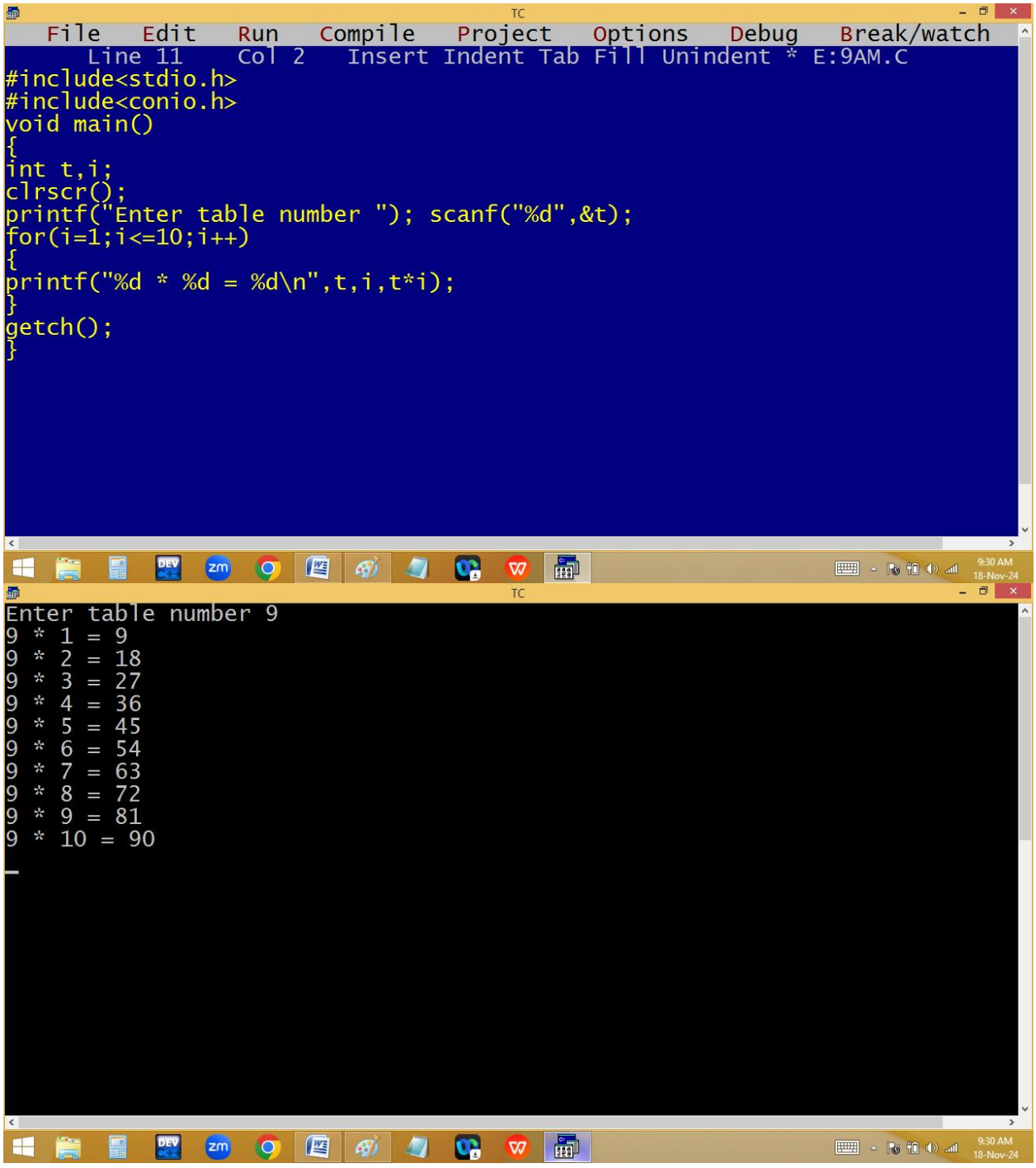
9*2=18

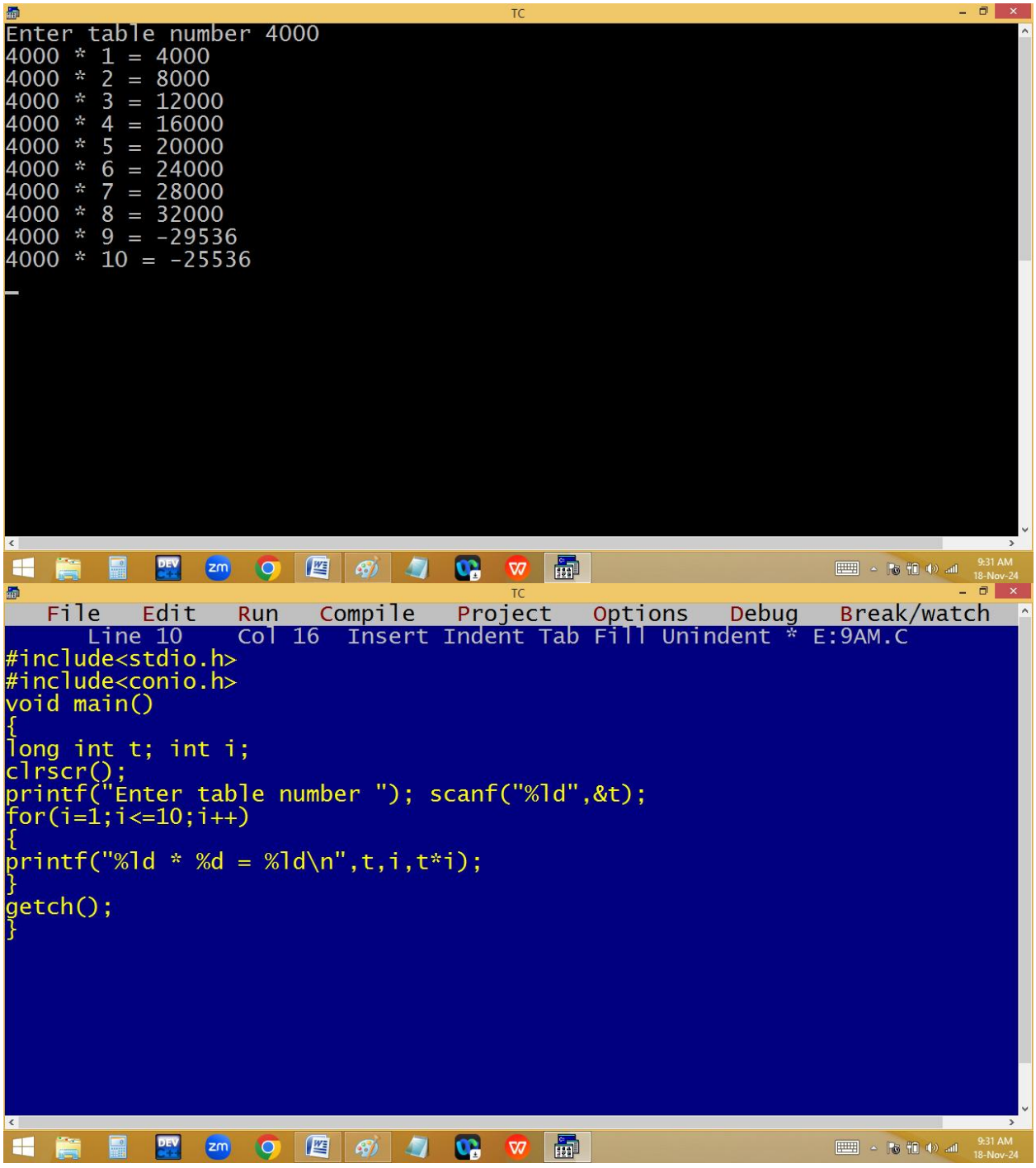
9*3=27

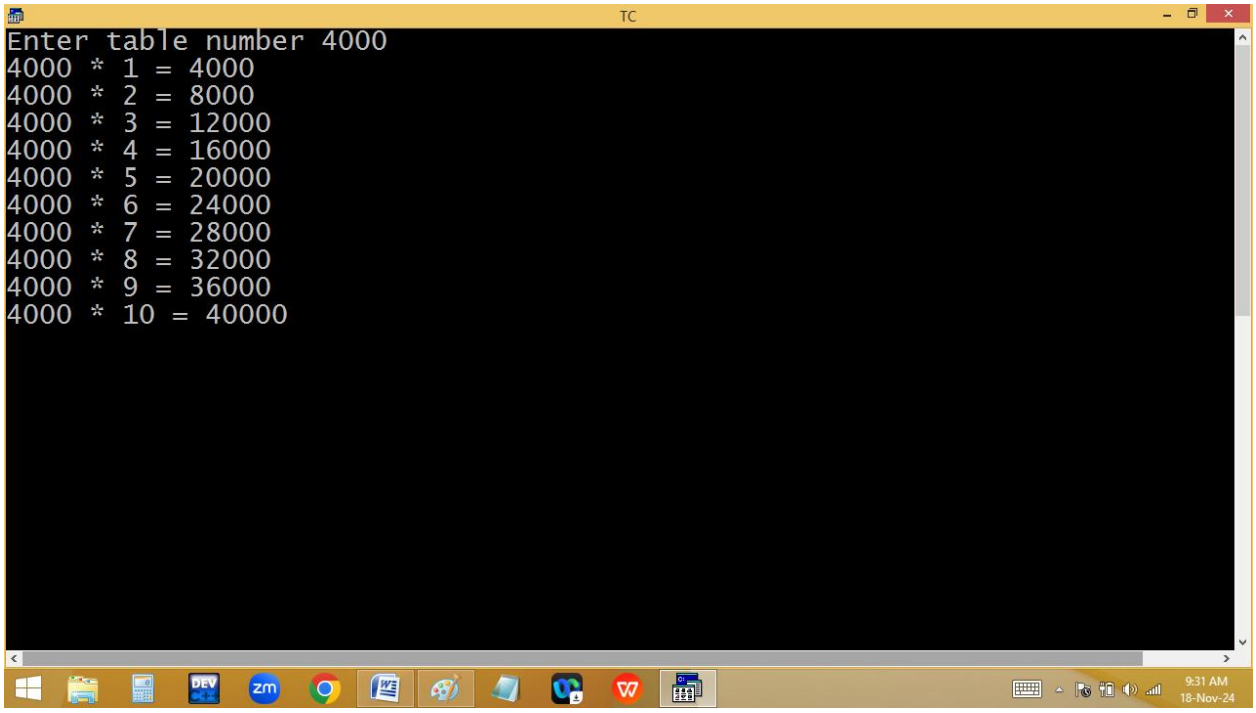
..

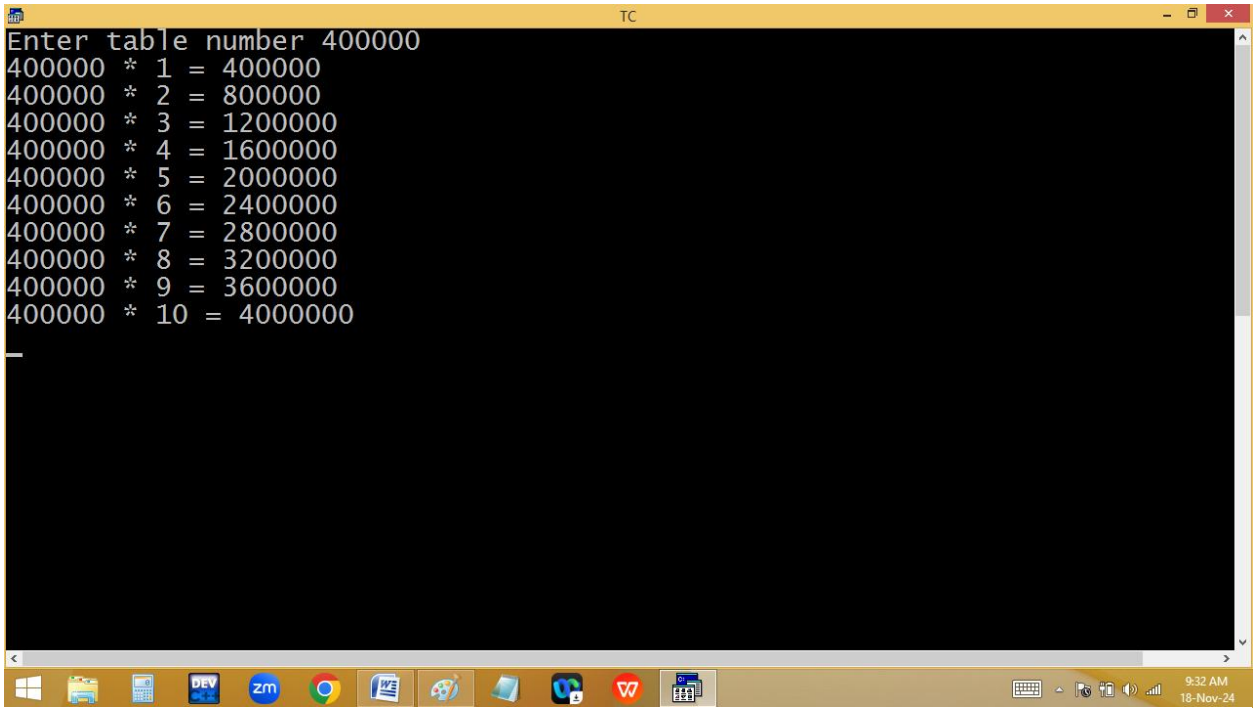
..

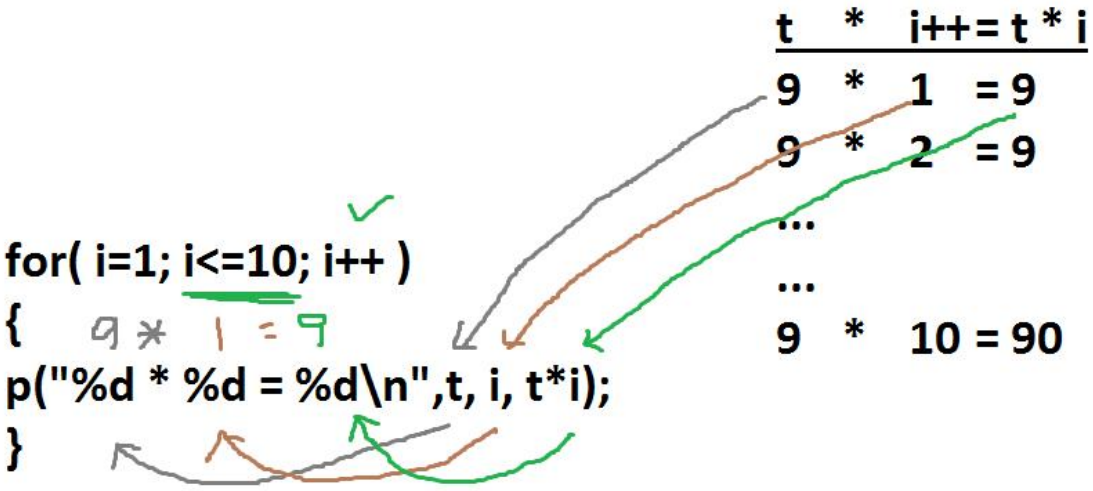
9*10=90


TC
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 2 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int t,i;
clrscr();
printf("Enter table number "); scanf("%d",&t);
for(i=1;i<=10;i++)
{
printf("%d * %d = %d\n",t,i,t*i);
}
getch();
}
9:30 AM
18-Nov-24
TC
Enter table number 9
9 * 1 = 9
9 * 2 = 18
9 * 3 = 27
9 * 4 = 36
9 * 5 = 45
9 * 6 = 54
9 * 7 = 63
9 * 8 = 72
9 * 9 = 81
9 * 10 = 90
9:30 AM
18-Nov-24


TC
Enter table number 4000
4000 * 1 = 4000
4000 * 2 = 8000
4000 * 3 = 12000
4000 * 4 = 16000
4000 * 5 = 20000
4000 * 6 = 24000
4000 * 7 = 28000
4000 * 8 = 32000
4000 * 9 = -29536
4000 * 10 = -25536
TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 16 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long int t; int i;
clrscr();
printf("Enter table number "); scanf("%ld",&t);
for(i=1;i<=10;i++)
{
printf("%ld * %d = %ld\n",t,i,t*i);
}
getch();
}

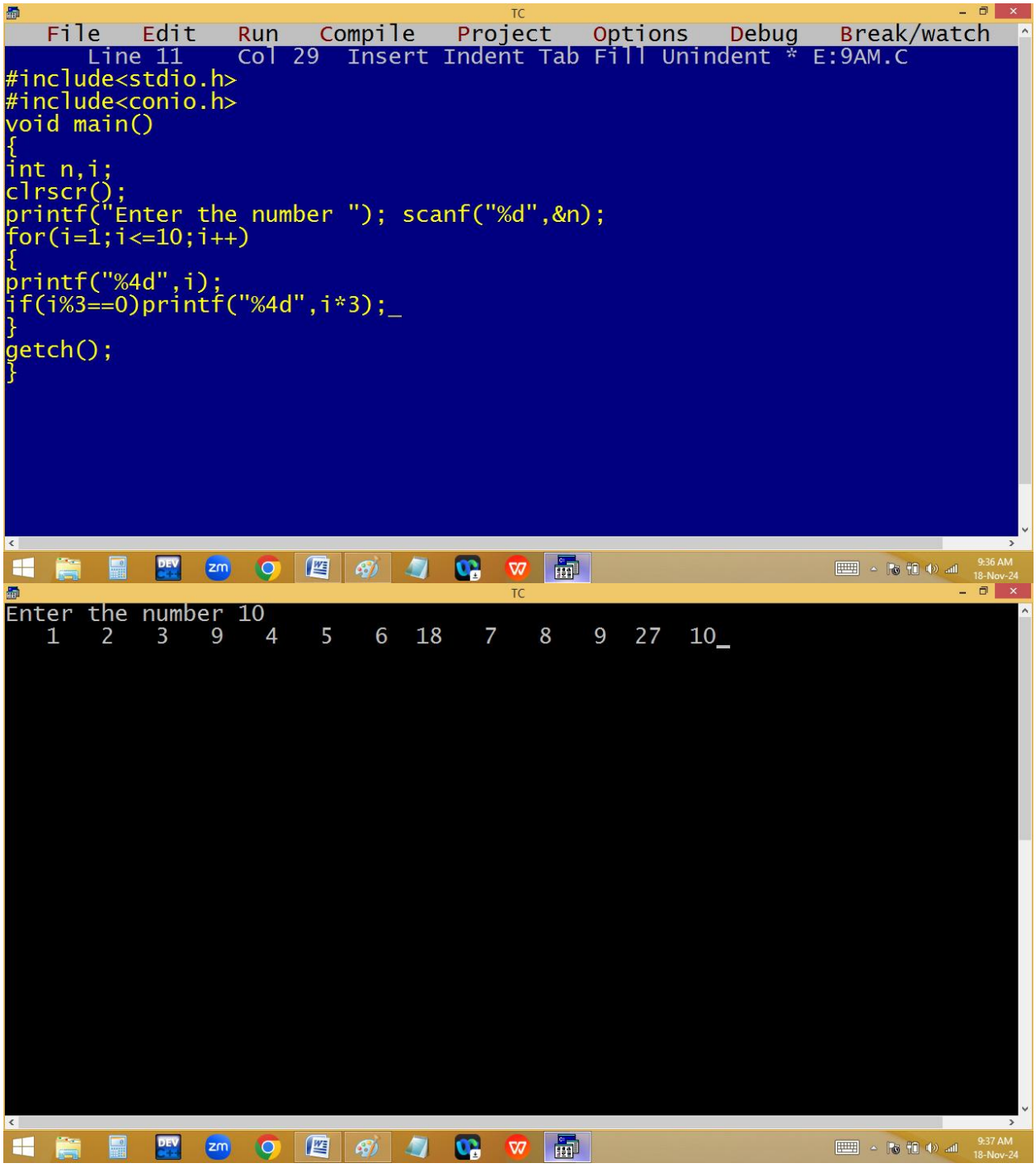

TC
Enter table number 4000
4000 * 1 = 4000
4000 * 2 = 8000
4000 * 3 = 12000
4000 * 4 = 16000
4000 * 5 = 20000
4000 * 6 = 24000
4000 * 7 = 28000
4000 * 8 = 32000
4000 * 9 = 36000
4000 * 10 = 40000
9:31 AM
18-Nov-24





Print below series:

1 2 3 9 4 5 6 18 7 8 9 27 … n

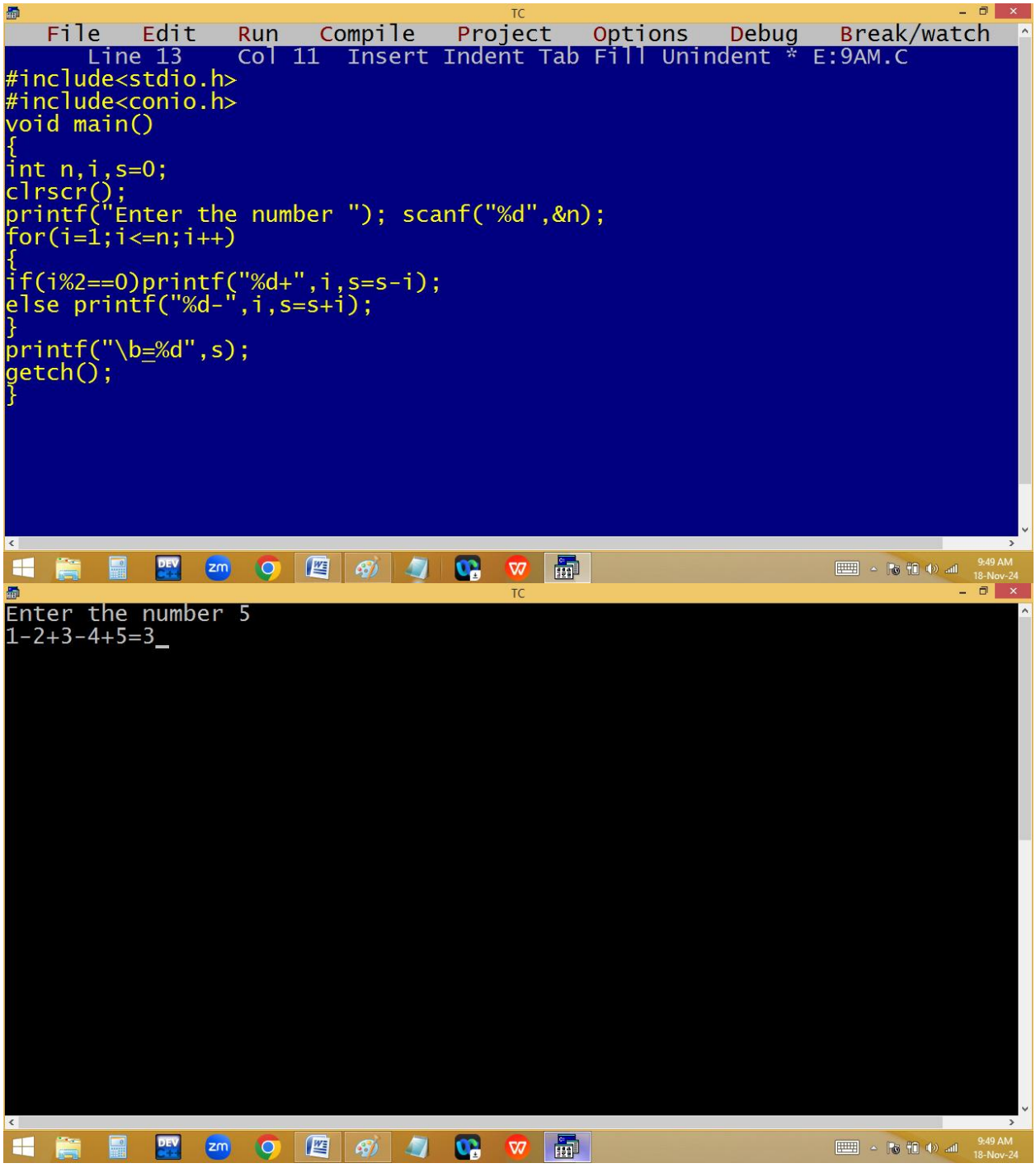

TC
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 29 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,i;
clrscr();
printf("Enter the number "); scanf("%d",&n);
for(i=1;i<=10;i++)
{
printf("%4d",i);
if(i%3==0)printf("%4d",i*3);_
}
getch();
}
9:36 AM
18-Nov-24
TC
Enter the number 10
1 2 3 9 4 5 6 18 7 8 9 27 10_
9:37 AM
18-Nov-24

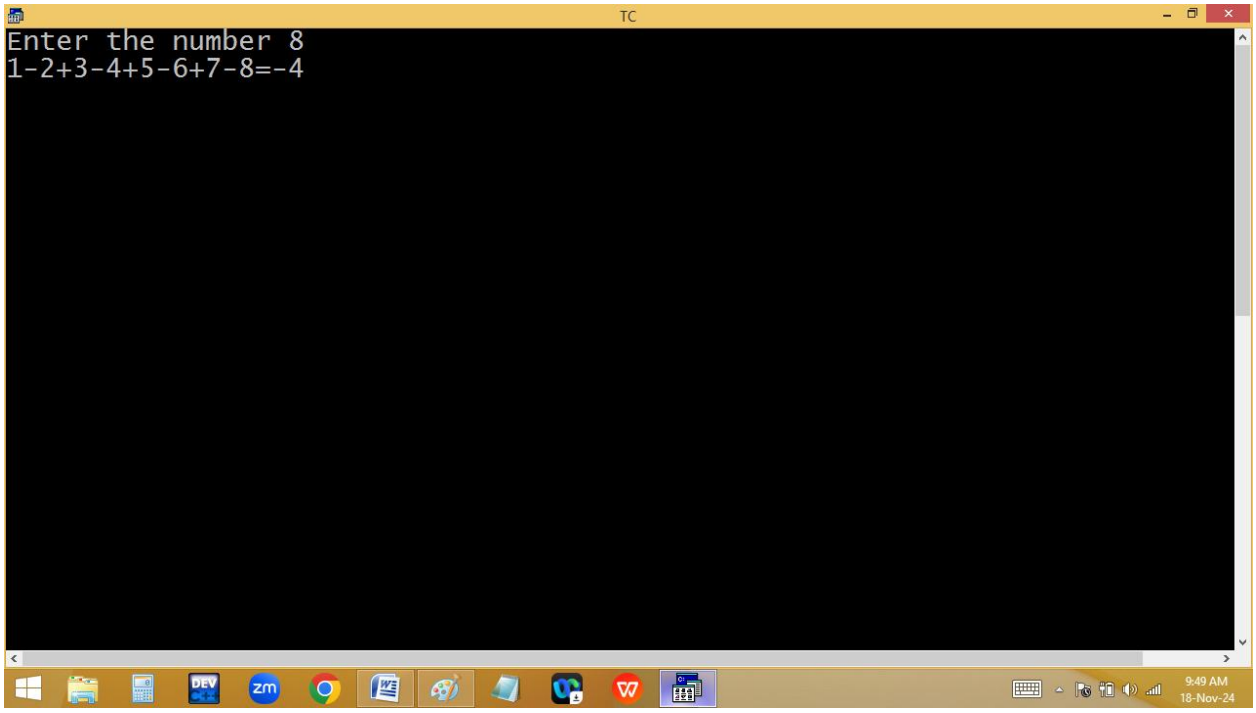
```
for( i=1; i<=n; i++)
{
printf(i);
if( i%3==0) p( i * 3 );
}
```

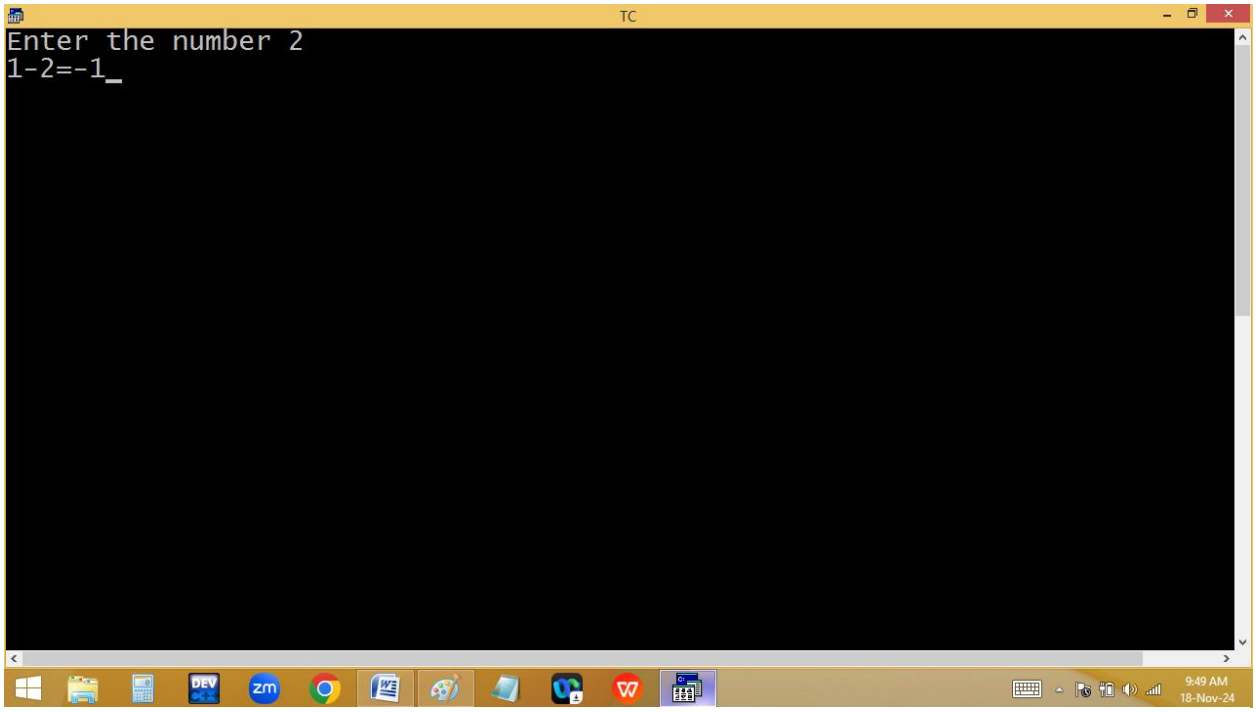
n	i
10	1%3=1
	2%3=2
	3%3=0 ==> 3*3=9
	4
	5
	6%3=0 ==> 6*3=18
	7
	8
	9%3=0 ==> 9*3=27
	10

Print below series:

n=5 ➔ 1-2+3-4+5=3


TC
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 11 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,i,s=0;
clrscr();
printf("Enter the number "); scanf("%d",&n);
for(i=1;i<=n;i++)
{
if(i%2==0)printf("%d+",i,s=s-i);
else printf("%d-",i,s=s+i);
}
printf("\b=%d",s);
getch();
}
TC
Enter the number 5
1-2+3-4+5=3
9:49 AM
18-Nov-24
9:49 AM
18-Nov-24


TC
Enter the number 8
1-2+3-4+5-6+7-8=-4
9:49 AM
18-Nov-24

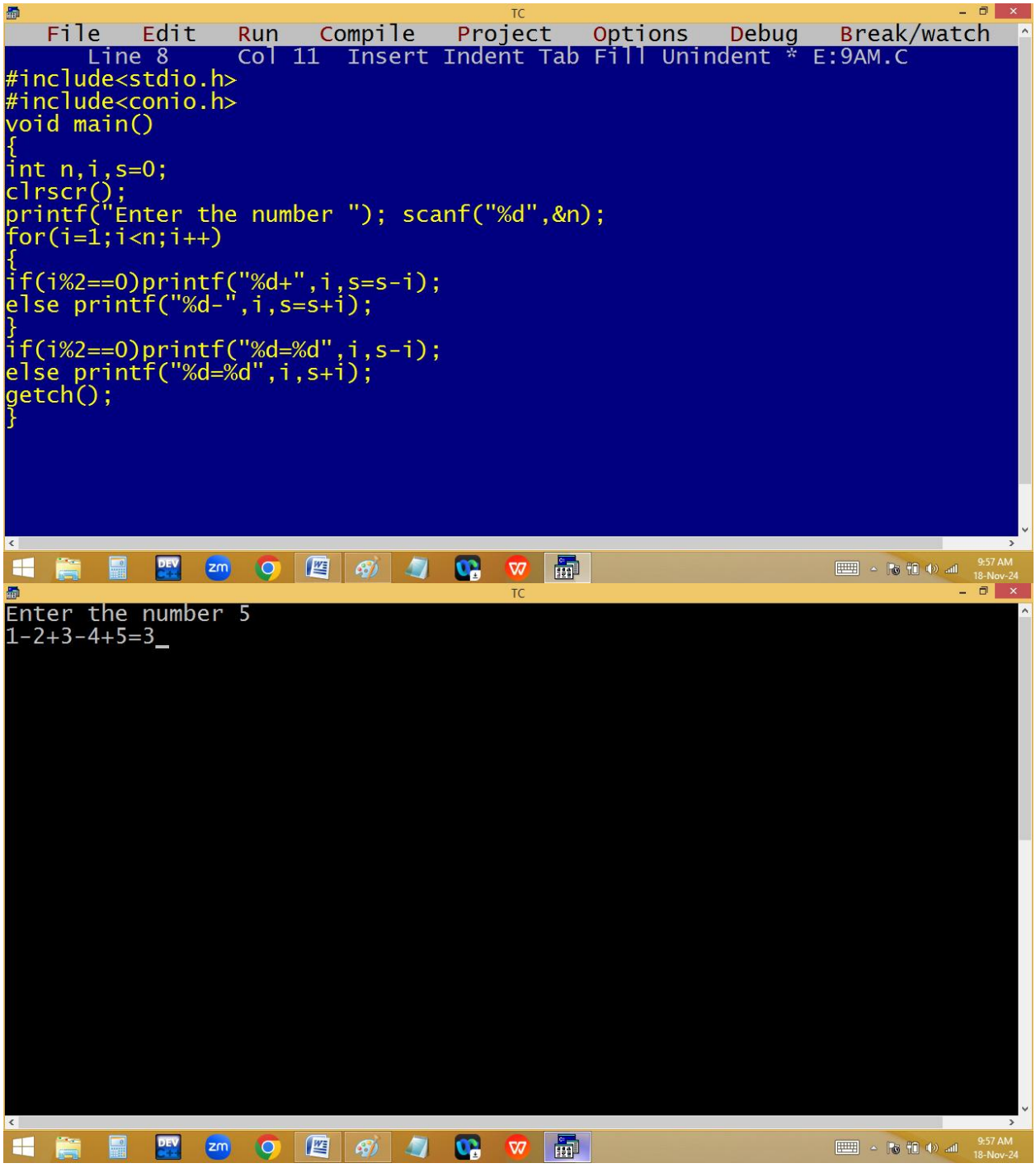


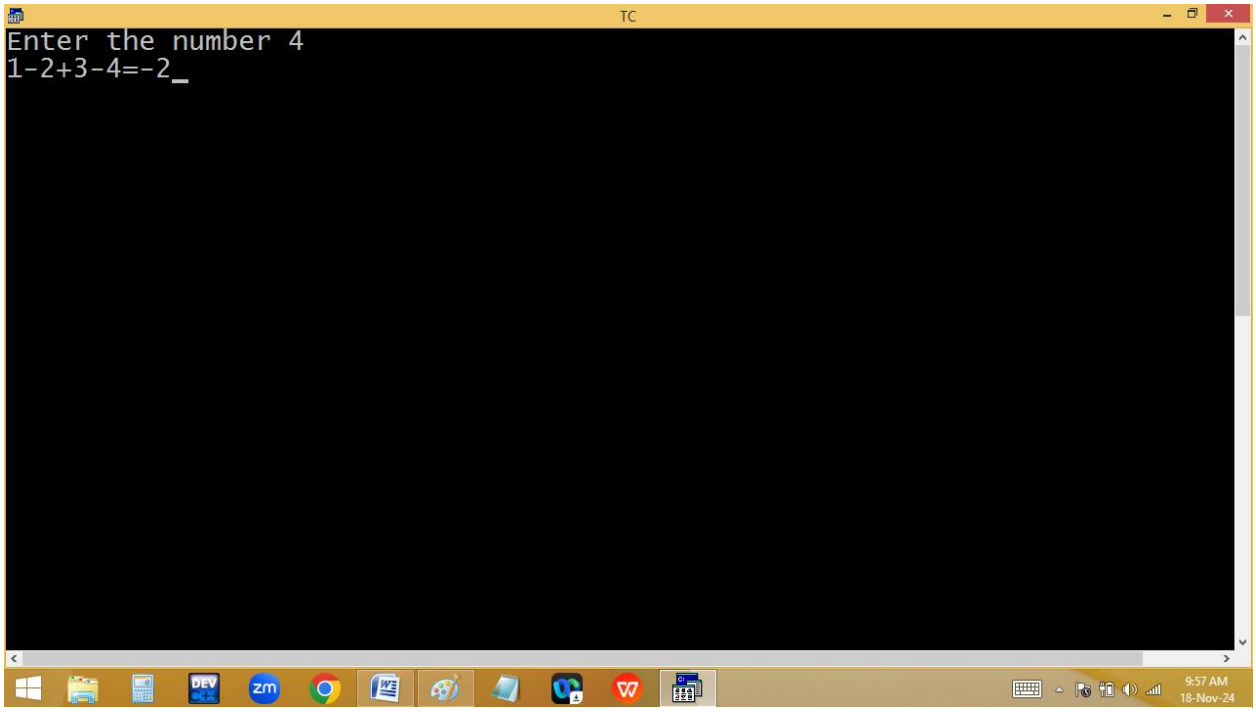

```
for( i=1; i<=5; i++ )
{
if( i%2==0 ) printf("%d+",i,s=s-i);
else printf("%d-",i, s=s+i);
}
printf("=%d",s);
```

n	i	s
5	1%2=1	0+1=1 ✓
	2%2=0	1-2=-1
	3%2=1	-1+3=2
	4%2=0	2-4=-2
	5%2=1	-2+5=3
	6	

1-2+3-4+5-=3

Without using \b:


TC
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 11 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,i,s=0;
clrscr();
printf("Enter the number "); scanf("%d",&n);
for(i=1;i<n;i++)
{
if(i%2==0)printf("%d+",i,s=s-i);
else printf("%d-",i,s=s+i);
}
if(i%2==0)printf("%d=%d",i,s-i);
else printf("%d=%d",i,s+i);
getch();
}
9:57 AM
18-Nov-24
TC
Enter the number 5
1-2+3-4+5=3
9:57 AM
18-Nov-24




```
for( i=1; i<  5; i++ )
{
if( i%2==0 ) printf("%d+",i,s=s-i);
else printf("%d-",i,  s=s+i);
}
```

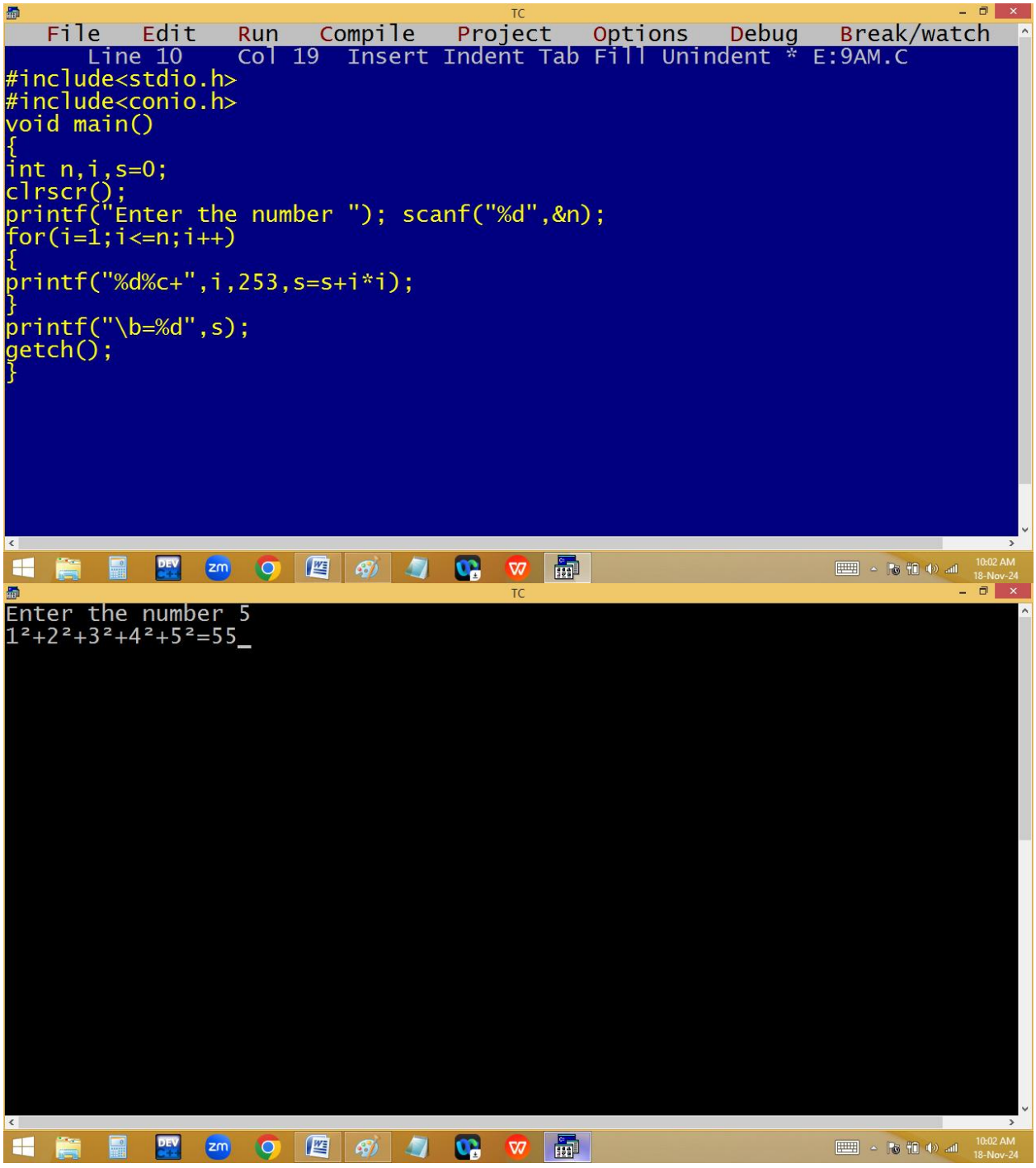
```
if(i%2==0) printf("%d= %d",i,s-i);
else printf("%d=%d",i,s+i);
```

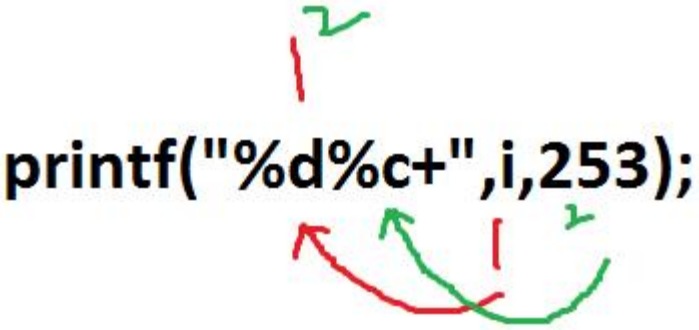
n	i	s
5	1%2=1	0+1=1 ✓
	2%2=0	1-2=-1
	3%2=1	-1+3=2
	4%2=0	2-4=-2
	5%2=1	-2+5=3

$1-2+3-4+5=3$

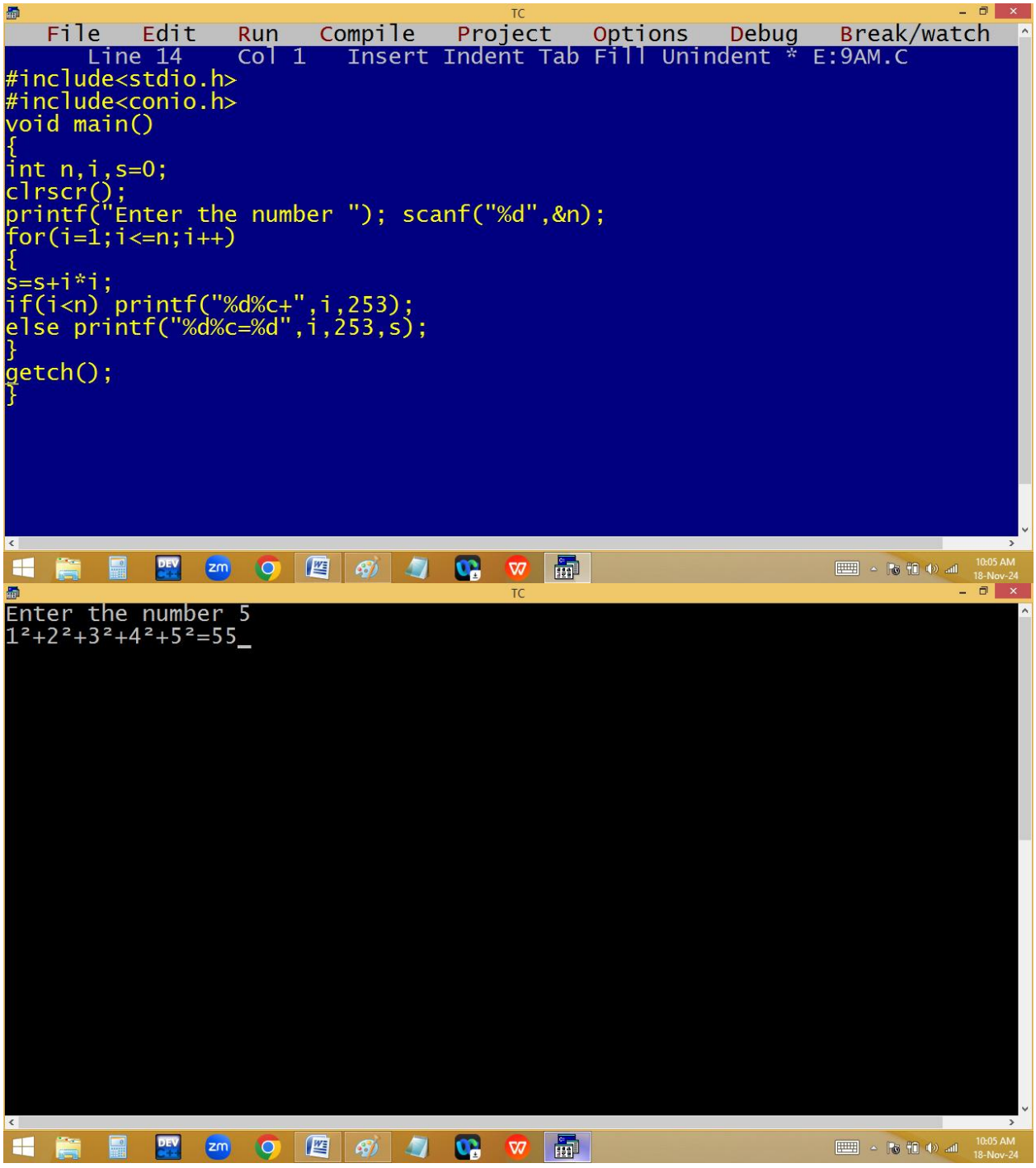
Print below series:

n=5 ➔ $1^2 + 2^2 + 3^2 + 4^2 + 5^2 = 1 + 4 + 9 + 16 + 25 = 55$

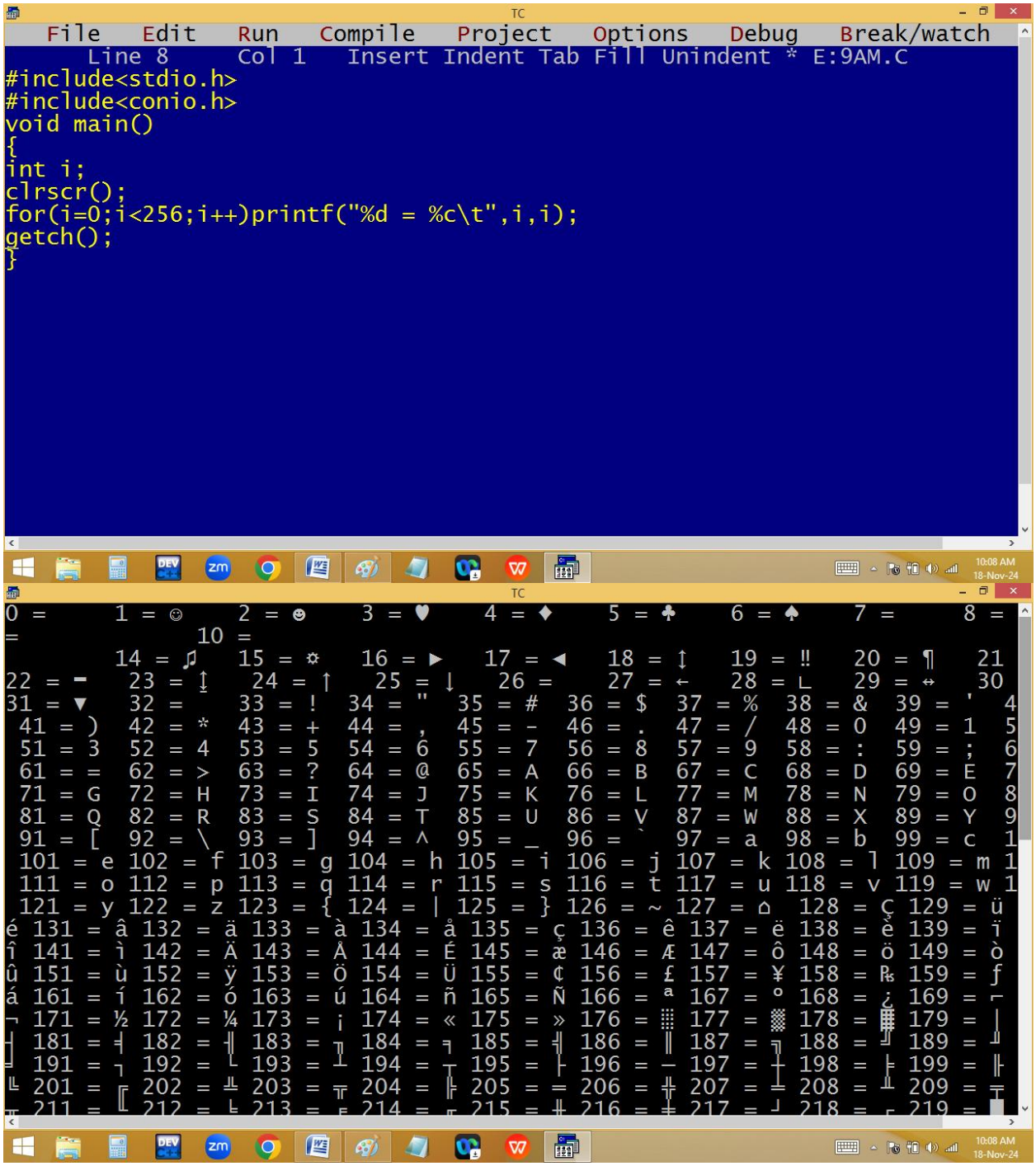

TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 19 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,i,s=0;
clrscr();
printf("Enter the number "); scanf("%d",&n);
for(i=1;i<=n;i++)
{
printf("%d%c+",i,253,s=s+i*i);
}
printf("\b=%d",s);
getch();
}
TC
Enter the number 5
1²+2²+3²+4²+5²=55
10:02 AM
18-Nov-24

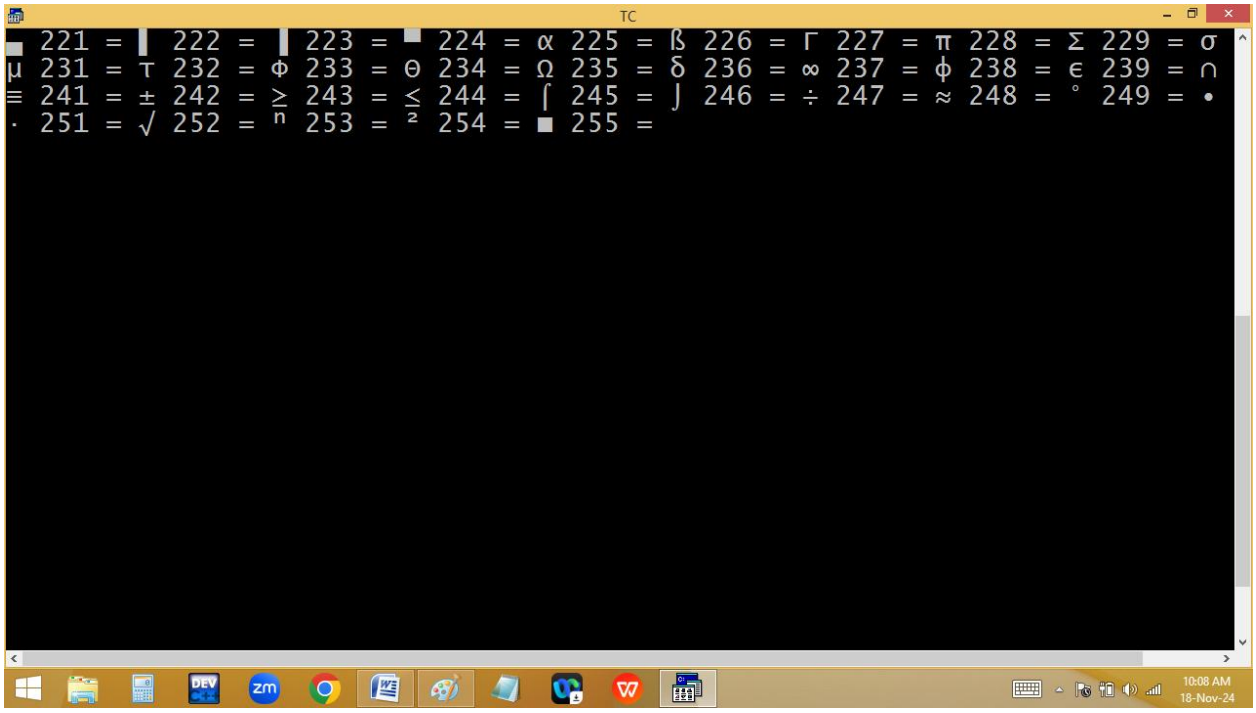


Without using \b:


TC
File Edit Run Compile Project Options Debug Break/watch
Line 14 Col 1 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,i,s=0;
clrscr();
printf("Enter the number "); scanf("%d",&n);
for(i=1;i<=n;i++)
{
s=s+i*i;
if(i<n) printf("%d%c+",i,253);
else printf("%d%c=%d",i,253,s);
}
getch();
}
TC
Enter the number 5
1²+2²+3²+4²+5²=55

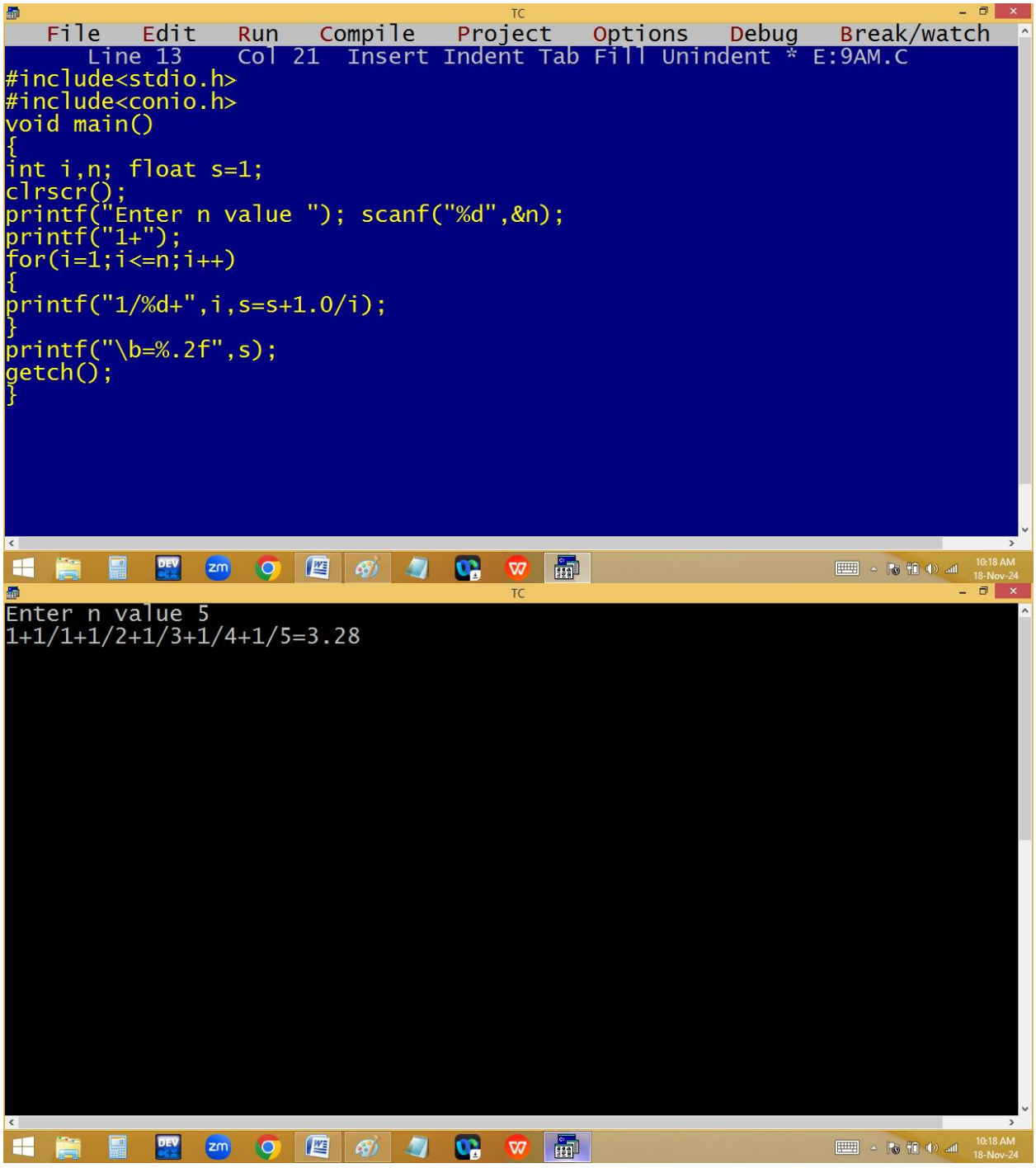
ASCII Table:


TC
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 1 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int i;
clrscr();
for(i=0;i<256;i++)printf("%d = %c\t",i,i);
getch();
}
TC
0 = 1 = ☺ 2 = ☻ 3 = ♥ 4 = ♦ 5 = ♣ 6 = ♠ 7 = 8 =
= 10 =
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 = ' 4
41 =) 42 = * 43 = + 44 = , 45 = - 46 = . 47 = / 48 = 0 49 = 1 5
51 = 3 52 = 4 53 = 5 54 = 6 55 = 7 56 = 8 57 = 9 58 = : 59 = ; 6
61 = = 62 = > 63 = ? 64 = @ 65 = A 66 = B 67 = C 68 = D 69 = E 7
71 = G 72 = H 73 = I 74 = J 75 = K 76 = L 77 = M 78 = N 79 = O 8
81 = Q 82 = R 83 = S 84 = T 85 = U 86 = V 87 = W 88 = X 89 = Y 9
91 = [92 = \ 93 =] 94 = ^ 95 = _ 96 = ` 97 = a 98 = b 99 = c 1
101 = e 102 = f 103 = g 104 = h 105 = i 106 = j 107 = k 108 = l 109 = m 1
111 = o 112 = p 113 = q 114 = r 115 = s 116 = t 117 = u 118 = v 119 = w 1
121 = y 122 = z 123 = { 124 = | 125 = } 126 = ~ 127 = ⌂ 128 = Ç 129 = ü
é 131 = â 132 = ä 133 = à 134 = å 135 = ç 136 = ê 137 = ë 138 = è 139 = ï
î 141 = ì 142 = Ä 143 = Å 144 = É 145 = æ 146 = Æ 147 = ô 148 = ö 149 = ò
û 151 = ù 152 = ÿ 153 = Ö 154 = Ü 155 = ¢ 156 = £ 157 = ¥ 158 = ₧ 159 = ƒ
á 161 = í 162 = ó 163 = ú 164 = ñ 165 = Ñ 166 = ª 167 = º 168 = ¿ 169 = ⌐
¬ 171 = ½ 172 = ¼ 173 = ¡ 174 = « 175 = » 176 = ▒ 177 = ▓ 178 = ▓ 179 = │
┤ 181 = ╡ 182 = ╢ 183 = ╖ 184 = ╕ 185 = ╣ 186 = ║ 187 = ╗ 188 = ╝ 189 = ╜
┘ 191 = ┐ 192 = └ 193 = ┴ 194 = ┬ 195 = ├ 196 = ─ 197 = ┼ 198 = ╞ 199 = ╟
╚ 201 = ╔ 202 = ╩ 203 = ╦ 204 = ╠ 205 = ═ 206 = ╬ 207 = ╧ 208 = ╨ 209 = ╤
╥ 211 = ╙ 212 = ╘ 213 = ╒ 214 = ╓ 215 = ╫ 216 = ╪ 217 = ┘ 218 = ┌ 219 = ▌



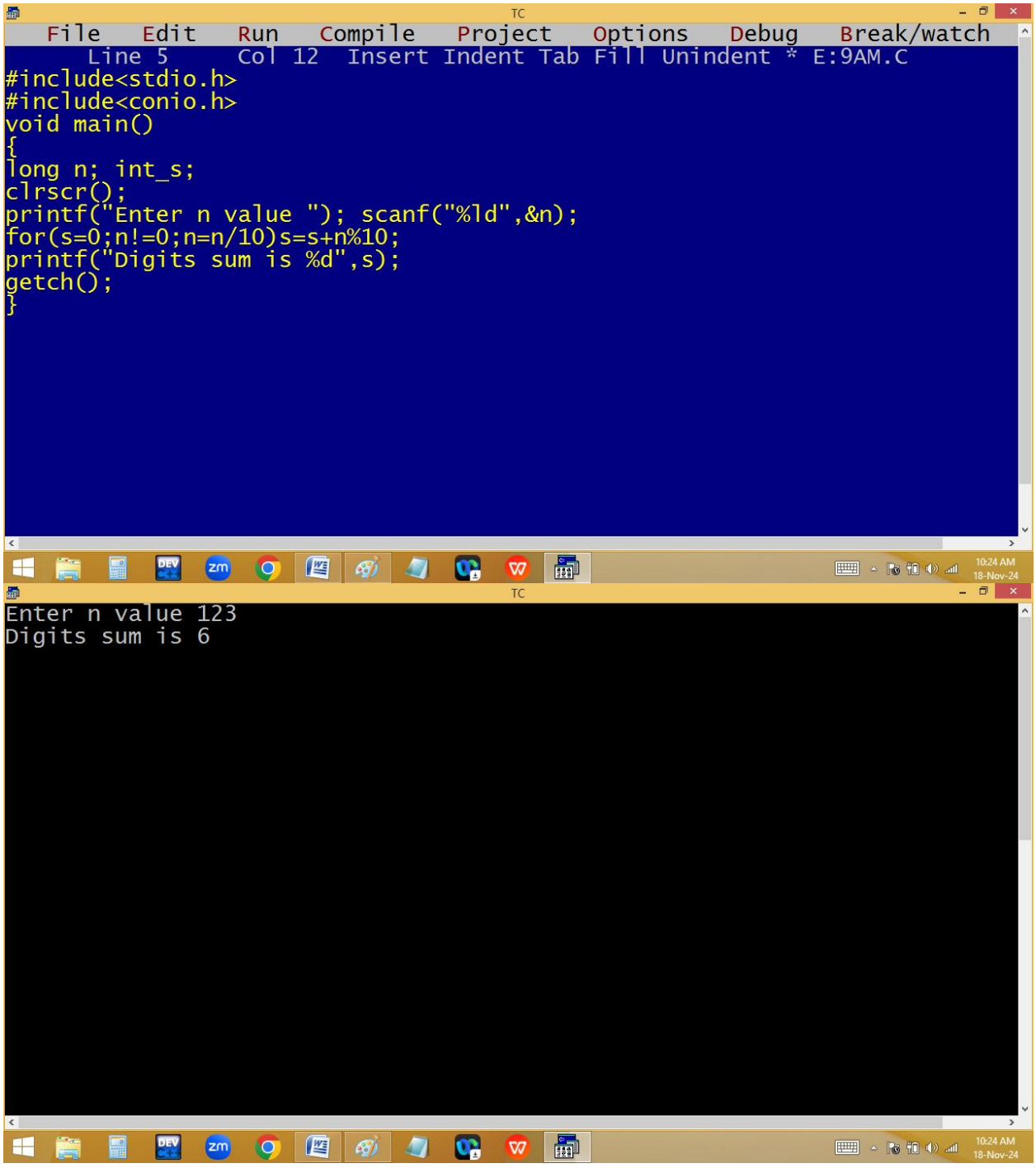
Harmonic series:

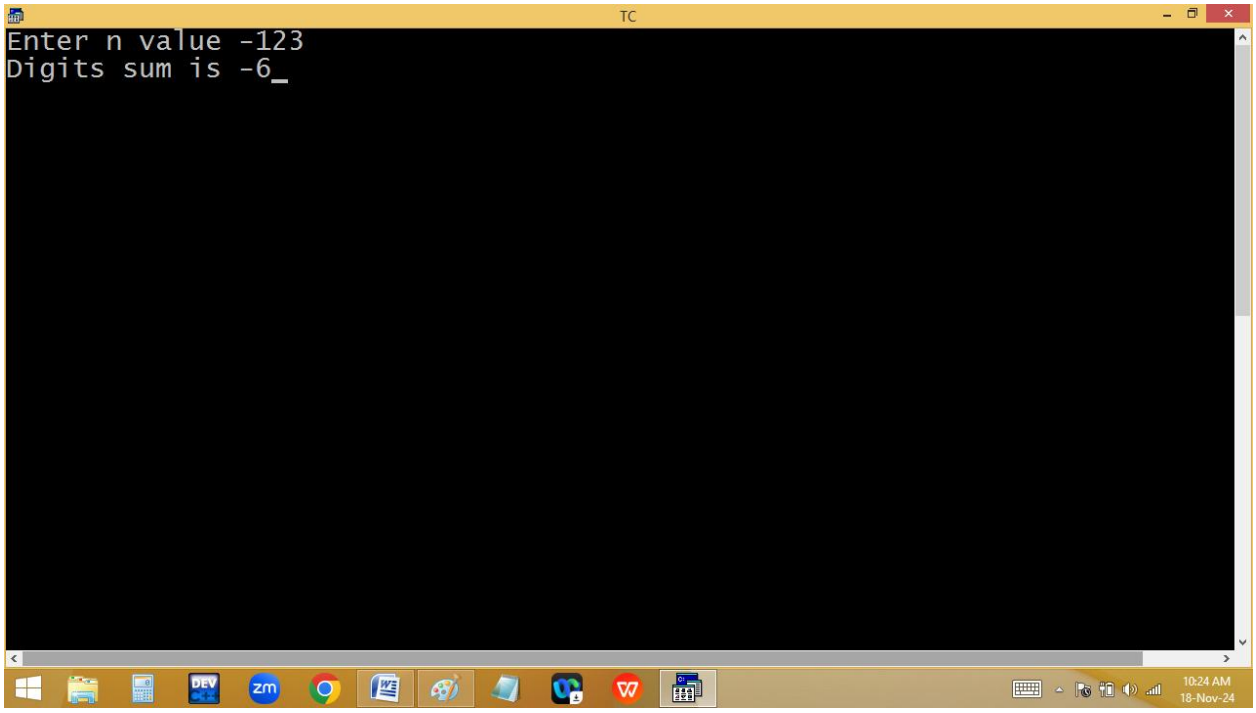
n=5 ➔ 1 + 1/1 + 1/2 + 1/3 + 1/4 + 1/5 = 3.28

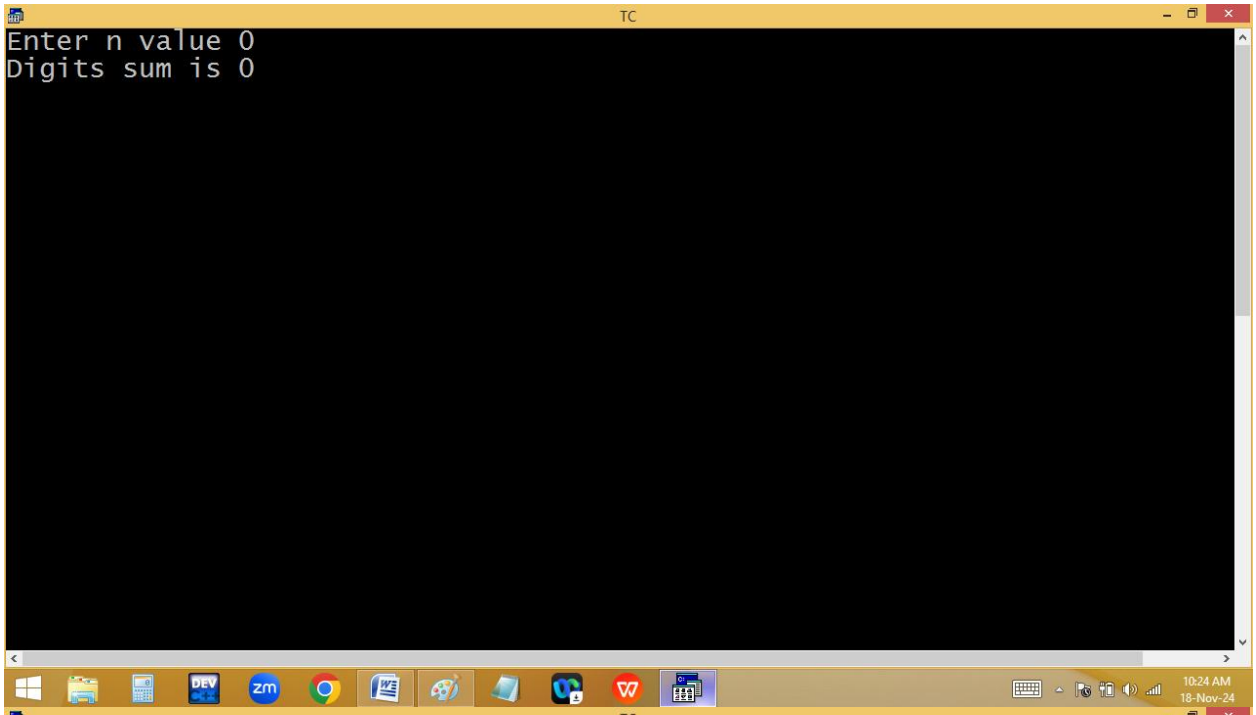


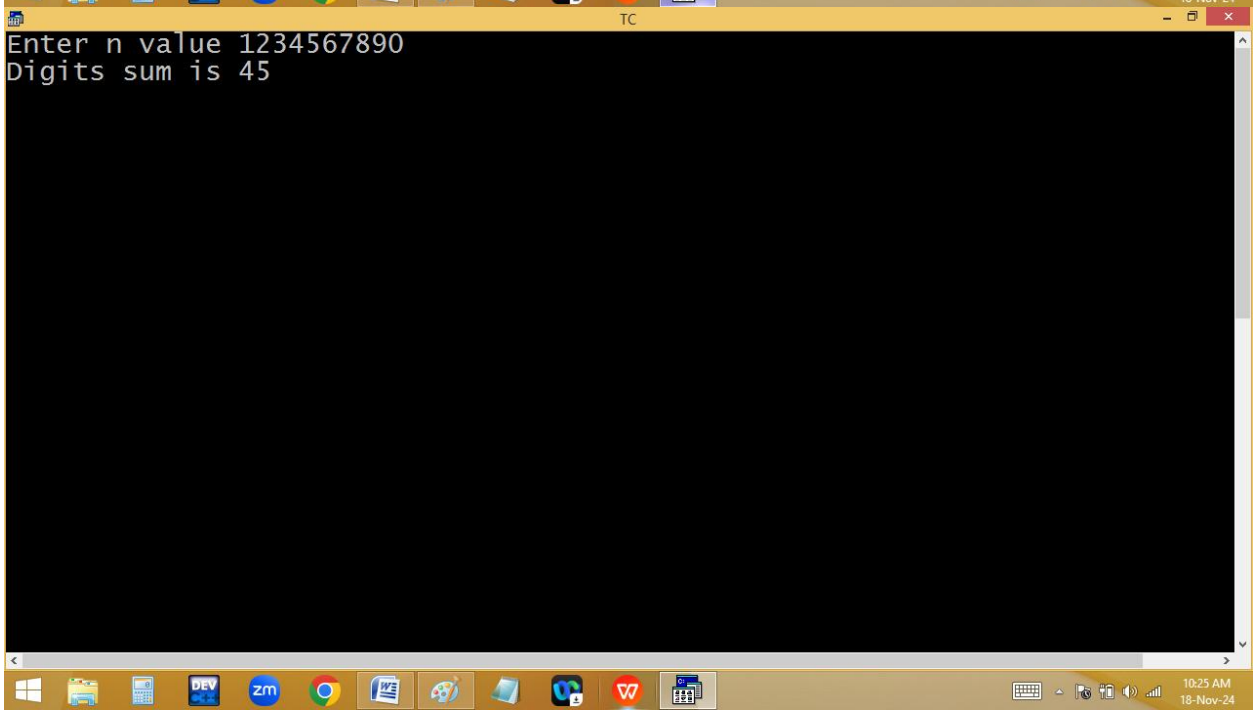
Finding digits sum:

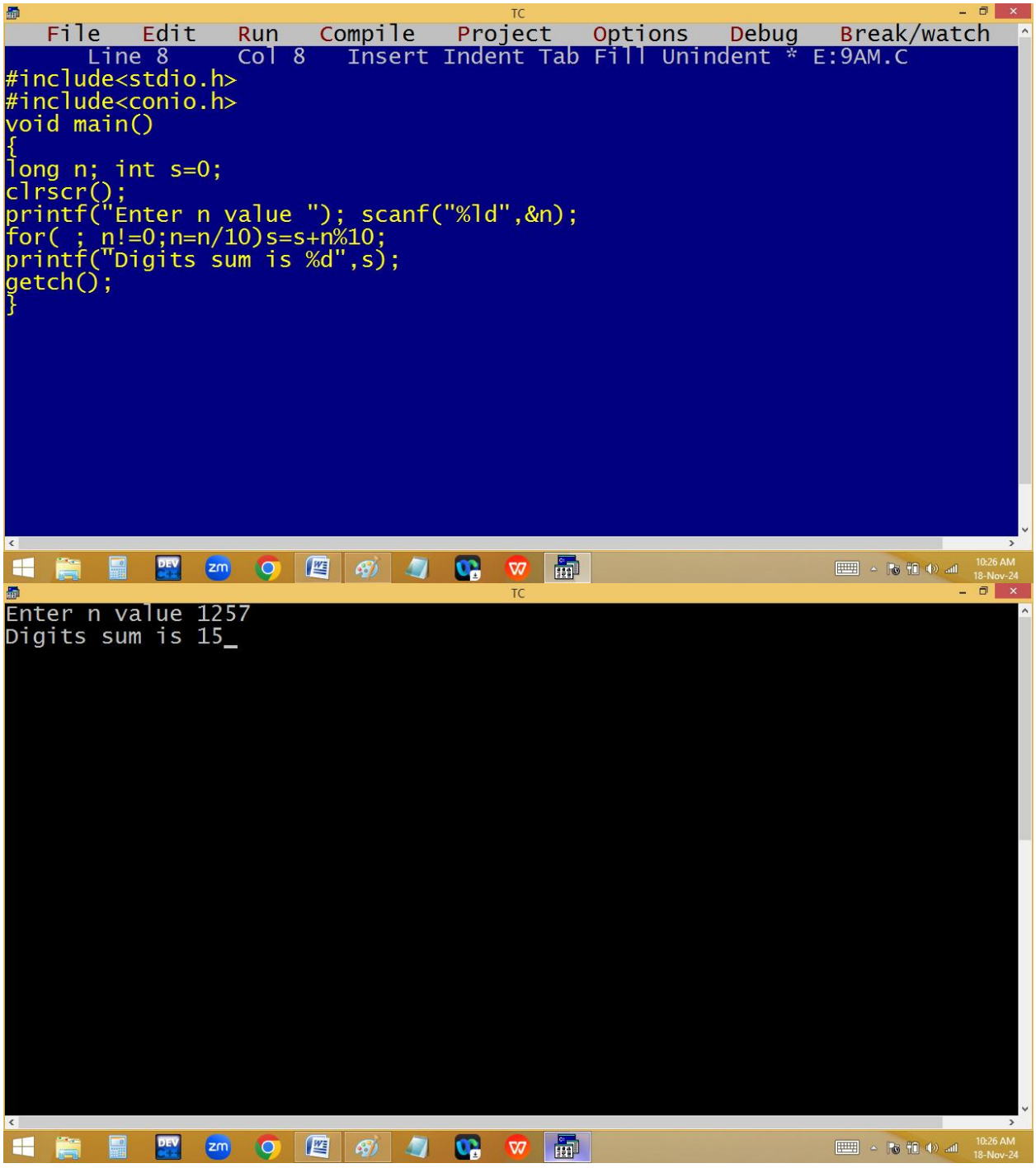
n=123 ➔ 1 + 2 + 3 = 6

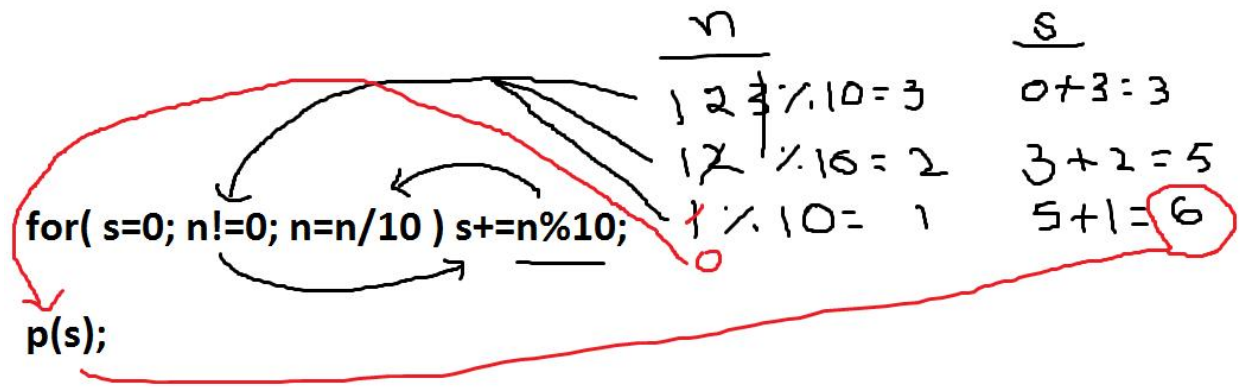

TC
File Edit Run Compile Project Options Debug Break/watch
Line 5 Col 12 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long n; int_s;
clrscr();
printf("Enter n value "); scanf("%ld",&n);
for(s=0;n!=0;n=n/10)s=s+n%10;
printf("Digits sum is %d",s);
getch();
}
TC
Enter n value 123
Digits sum is 6

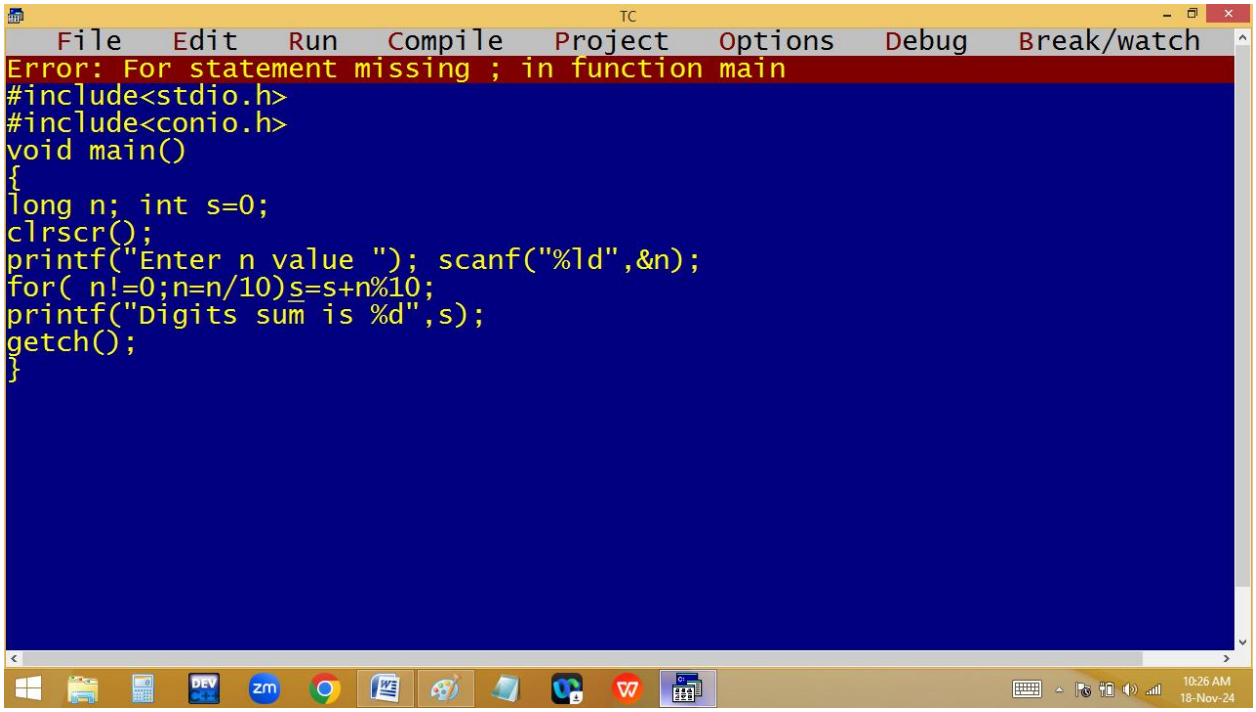

TC
Enter n value -123
Digits sum is -6
10:24 AM
18-Nov-24


TC
Enter n value 0
Digits sum is 0
10:24 AM
18-Nov-24


TC
Enter n value 1234567890
Digits sum is 45
10:25 AM
18-Nov-24


TC
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 8 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
long n; int s=0;
clrscr();
printf("Enter n value "); scanf("%ld",&n);
for(; n!=0;n=n/10)s=s+n%10;
printf("Digits sum is %d",s);
getch();
}
TC
Enter n value 1257
Digits sum is 15





Finding Armstrong no:

1 is a single digit no ➔ $1^1 = 1$

2 is a single digit no ➔ $2^1 = 2$

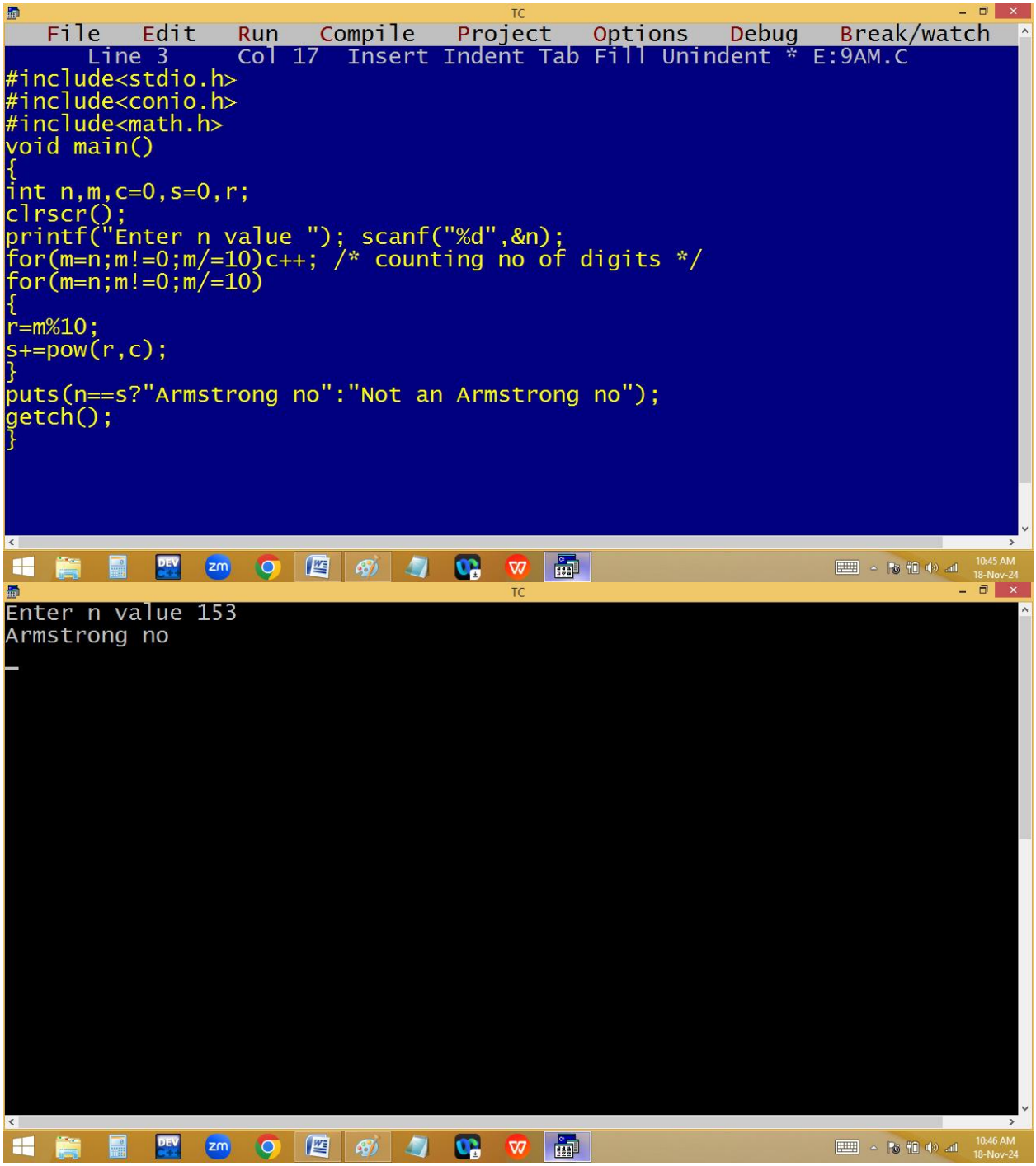
9 is a single digit no ➔ $9^1 = 9$

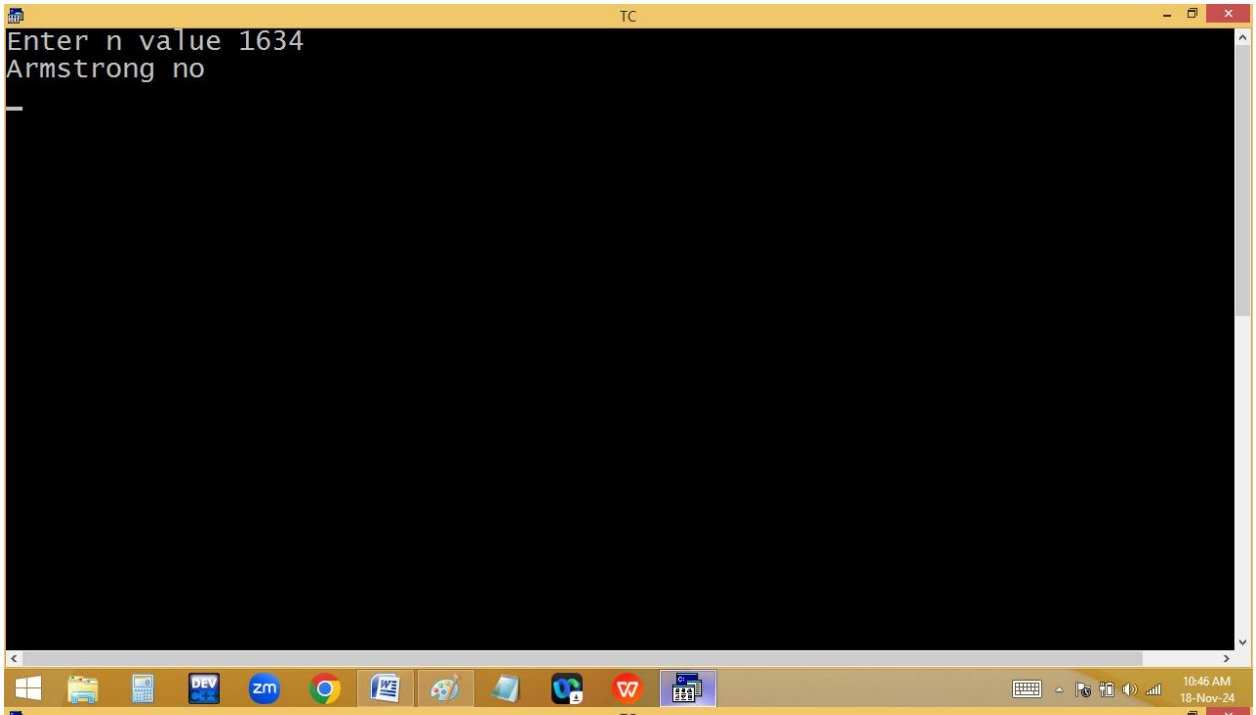
153 is a three digit no ➔ $1^3+5^{3+}3^3 = 1+125+27=153$

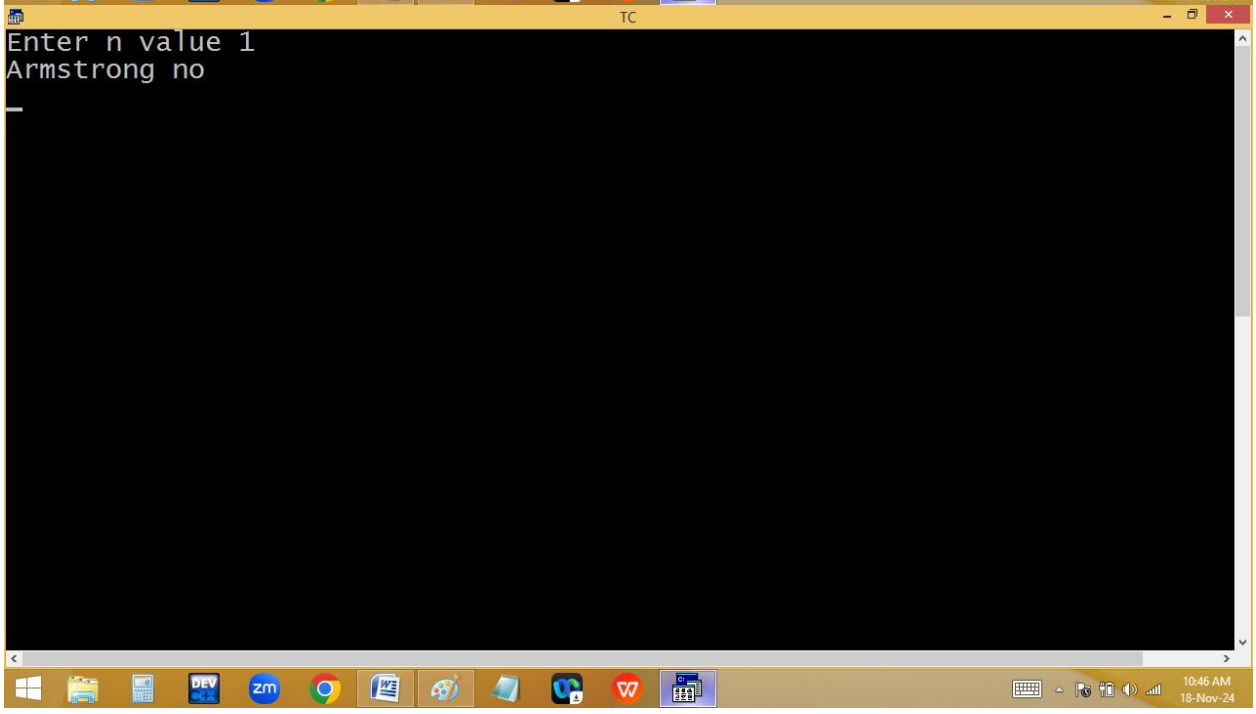
370, 371, 407, 1634, 8208,…

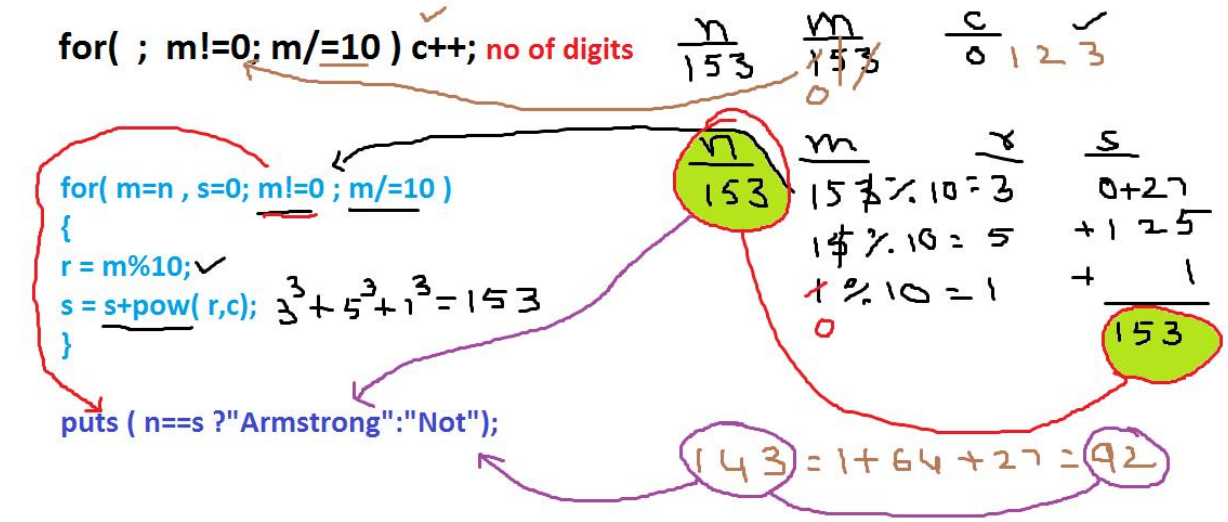
1634 is a 4 digit no == $1^4 + 6^4 + 3^4 + 4^4 = 1634$

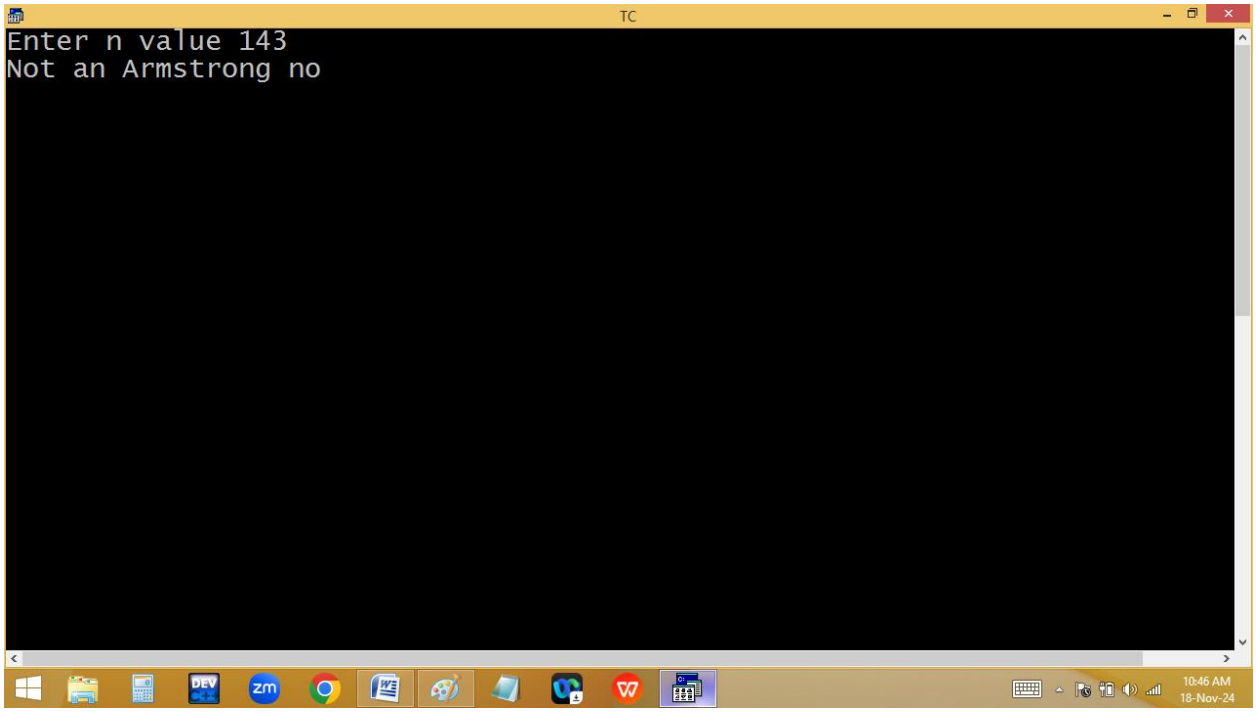
Here power depended on no of digits.




TC
Enter n value 1634
Armstrong no
10:46 AM
18-Nov-24


TC
Enter n value 1
Armstrong no
10:46 AM
18-Nov-24





Home work:

12345678 ➔ 78 56 34 12