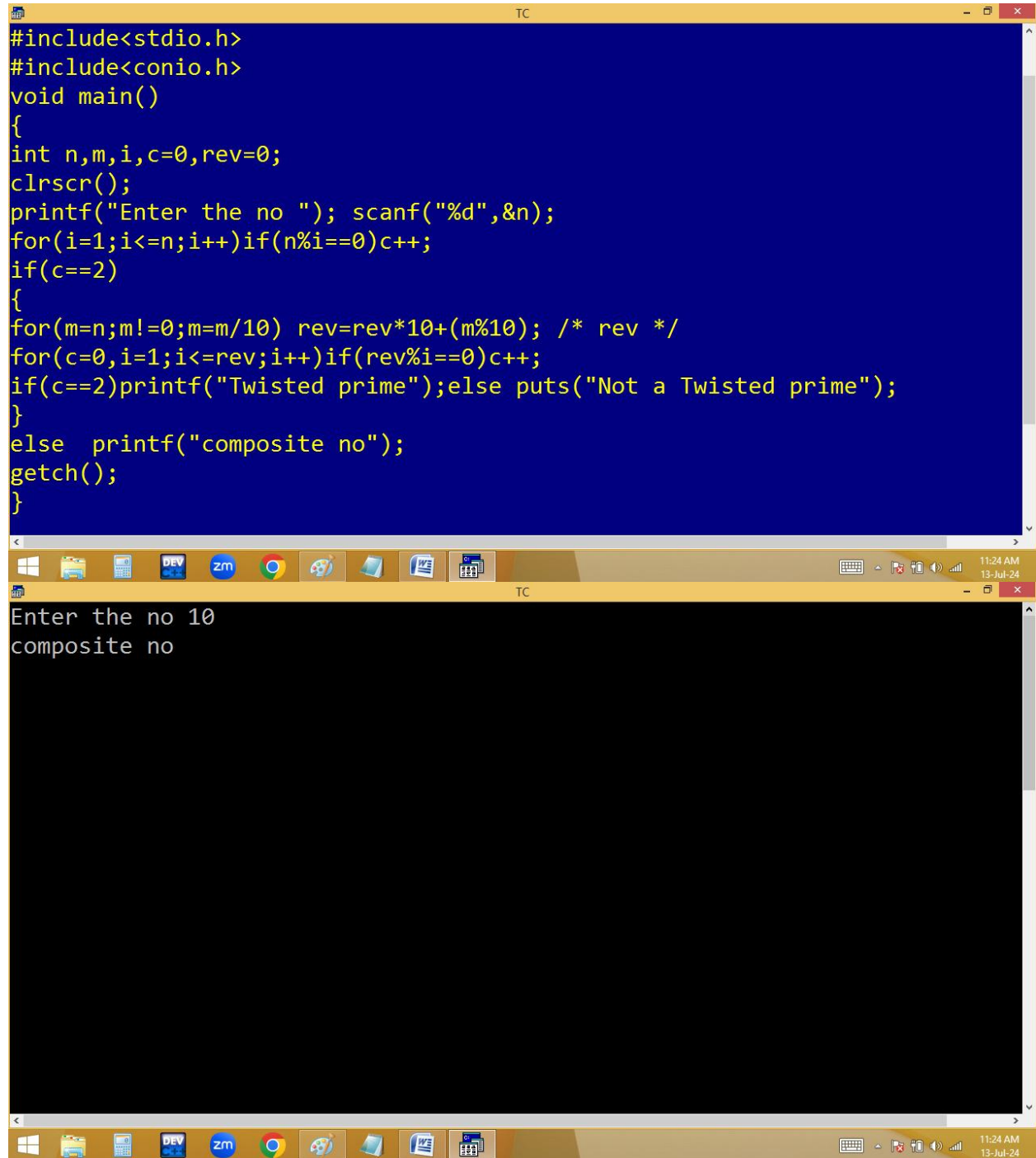


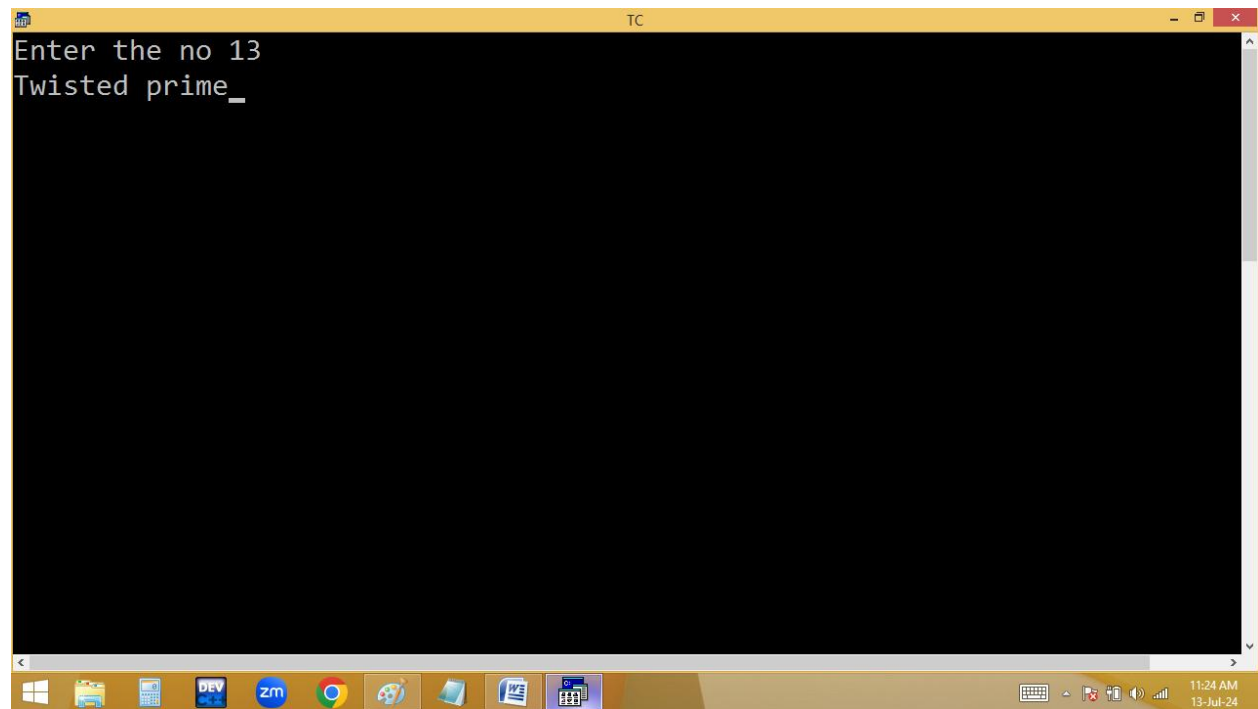
Finding twisted prime:

13 and reverse 31 both are primes.



```
#include<stdio.h>
#include<conio.h>
void main()
{
int n,m,i,c=0,rev=0;
clrscr();
printf("Enter the no "); scanf("%d",&n);
for(i=1;i<=n;i++)if(n%i==0)c++;
if(c==2)
{
for(m=n;m!=0;m=m/10) rev=rev*10+(m%10); /* rev */
for(c=0,i=1;i<=rev;i++)if(rev%i==0)c++;
if(c==2)printf("Twisted prime");else puts("Not a Twisted prime");
}
else printf("composite no");
getch();
}
```

Enter the no 10  
composite no



```
TC
Enter the no 61
Not a Twisted prime
```

$$\begin{array}{r} n \\ 13 \cancel{\%} 1 = 0 \\ 13 \cancel{\%} 13 = 0 \end{array}$$

$$\begin{array}{r} \cancel{x}eV \\ 31 \cancel{\%} 1 = 0 \\ 31 \cancel{\%} 31 = 0 \end{array}$$

Printing below series:

$$n=5 \rightarrow 1-2+3-4+5=3$$

if( $i \% 2 == 0$ )  $p(i+, s=s-i);$

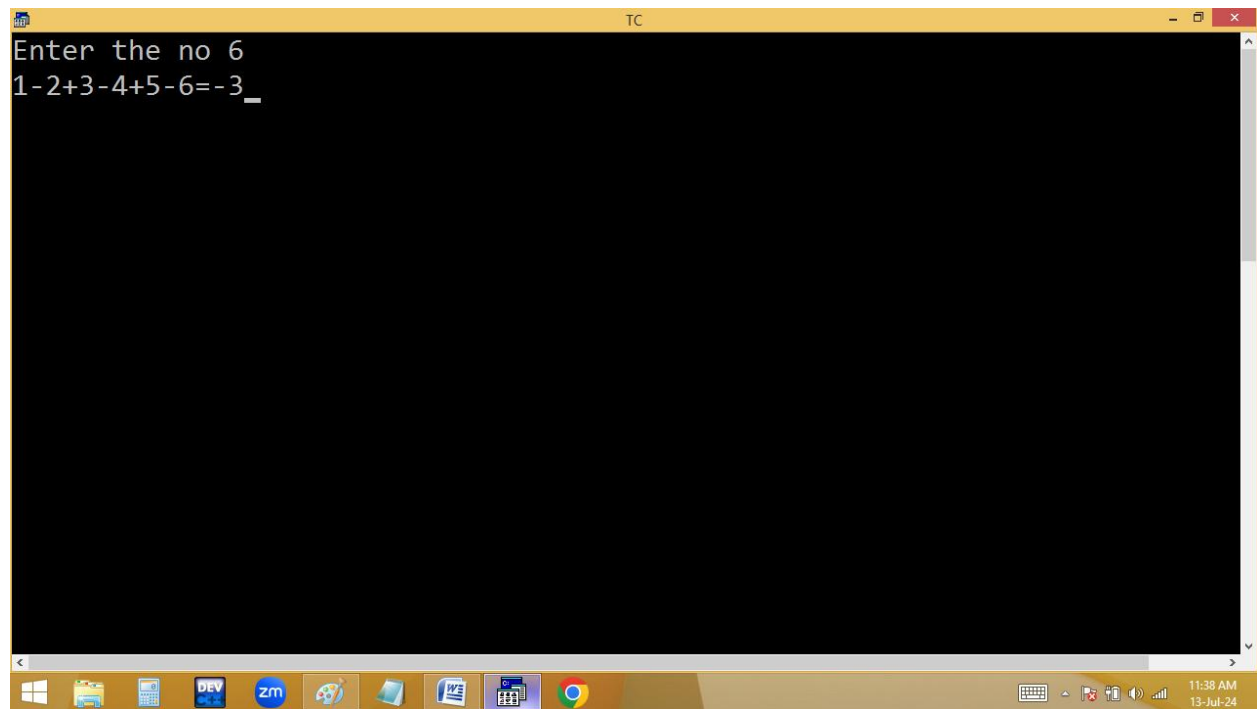
else  $p(i-, s=s+i);$

The image shows a screenshot of the Turbo C++ (TC) IDE. The top window displays the source code of a C program. The code includes `<stdio.h>` and `<conio.h>`, and defines a `main` function. Inside `main`, it declares `int n, i, s=0;`, clears the screen with `clrscr()`, and prompts the user to enter a number `n` using `scanf("%d",&n);`. A `for` loop runs from `i=1` to `i=n`. Inside the loop, it checks if `i` is even (`i%2==0`). If even, it adds `i` to `s` (`s+=i`); if odd, it subtracts `i` from `s` (`s-=i`). After the loop, it prints the final value of `s` using `printf("\b=%d",s);` and waits for a key press with `getch();`.

The bottom window shows the program's execution. It displays the prompt "Enter the no 5" and the output "1-2+3-4+5=3". The taskbar at the bottom shows various application icons and the system clock indicating 11:37 AM and 11:38 AM on 13-Jul-24.

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 11 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,i,s=0;
clrscr();
printf("Enter the no "); scanf("%d",&n);
for(i=1;i<=n;i++)
{
if(i%2==0)printf("%d+",i,s+=i);
else printf("%d-",i,s+=i);
}
printf("\b=%d",s);
getch();
}
```

Enter the no 5  
1-2+3-4+5=3



The image shows a screenshot of a Turbo C++ (TC) window. The window has a yellow title bar with the text "TC" in the center. The main area is black and contains the following text in white:

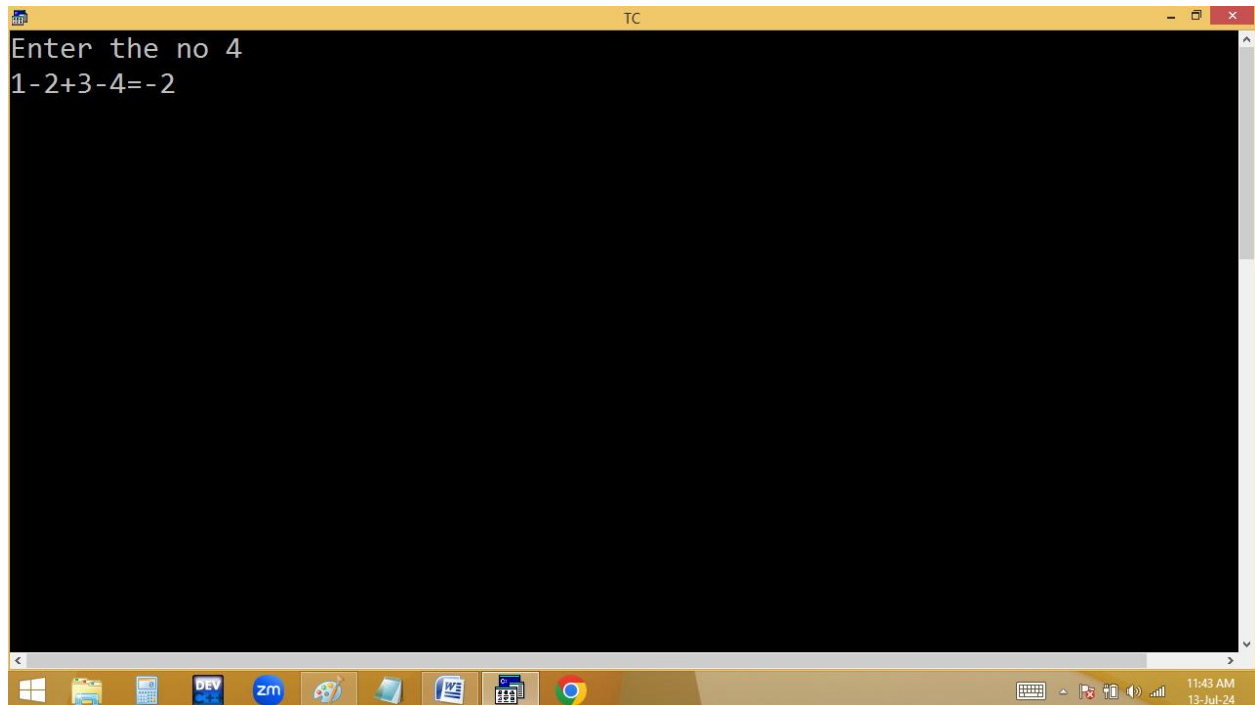
```
Enter the no 6
1-2+3-4+5-6=-3_
```

The window is running on a Windows operating system, as evidenced by the taskbar at the bottom. The taskbar includes icons for the Start button, File Explorer, Microsoft Edge, DEV, Zoom (zm), Paint, Word, Excel, and Google Chrome. The system tray on the right shows the date and time as "11:38 AM 13-Jul-24".

Without using \b:

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 23 Insert Indent Tab Fill Unindent * E:6PM.C
#include<conio.h>
void main()
{
int n,i,s=0;
clrscr();
printf("Enter the no "); scanf("%d",&n);
for(i=1;i<n;i++)
{
if(i%2==0)printf("%d+",i,s-=i);
else printf("%d-",i,s+=i);
}
i%2==0?(s=s-i):(s=s+i);
printf("%d=%d",i,s);
getch();
}

TC
Enter the no 5
1-2+3-4+5=3_
11:43 AM
13-Jul-24
```



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

```
i%2==0?s=s-i:s=s+i;
p("%d=%d",i,s);
```

$\frac{i}{1 \quad 2 \quad 3 \quad 4 \quad 5}$        $\frac{n}{5}$

$\frac{s}{0+1=1}$   
 $1-2=-1$   
 $-1+3=2$   
 $+2-4=-2$

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

## Printing Harmonic series:

n=5

$$1 + 1/1 + 1/2 + 1/3 + 1/4 + 1/5 = 3.28$$

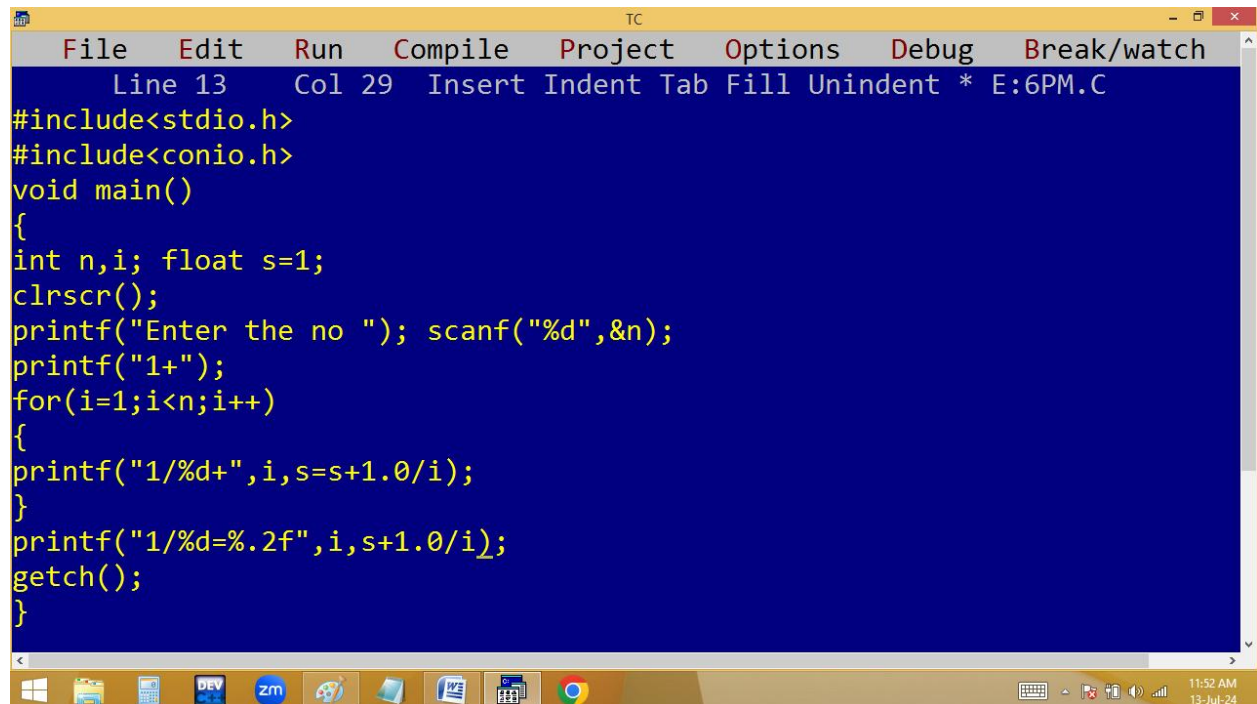
The image shows a screenshot of the Turbo C++ (TC) IDE. The top window displays the source code for a C program that calculates the sum of the harmonic series for a given number n. The code is as follows:

```
File Edit Run Compile Project Options Debug Break/watch
Line 1 Col 12 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,i; float s=1;
clrscr();
printf("Enter the no "); scanf("%d",&n);
printf("1+");
for(i=1;i<=n;i++)
{
printf("1/%d+",i,s=s+1.0/i);
}
printf("\b=%.2f",s);
getch();
}
```

The bottom window shows the program's execution. It prompts the user to "Enter the no 5" and displays the output: "1+1/1+1/2+1/3+1/4+1/5=3.28".



## Without \b:



The image shows a screenshot of the Turbo C++ (TC) IDE. The window title is "TC". The menu bar includes File, Edit, Run, Compile, Project, Options, Debug, and Break/watch. The status bar at the top indicates "Line 13 Col 29 Insert Indent Tab Fill Unindent \* E:6PM.C". The code editor has a dark blue background with yellow text. The code is as follows:

```
#include<stdio.h>
#include<conio.h>
void main()
{
int n,i; float s=1;
clrscr();
printf("Enter the no "); scanf("%d",&n);
printf("1+");
for(i=1;i<n;i++)
{
printf("1/%d+",i,s=s+1.0/i);
}
printf("1/%d=%.2f",i,s+1.0/i);
getch();
}
```

The Windows taskbar is visible at the bottom, showing icons for Windows, File Explorer, DEV, zm, a game controller, a folder, a document, a calculator, and Chrome. The system clock in the bottom right corner shows "11:52 AM 13-Jul-24".

```

Enter the no 5
1+1/1+1/2+1/3+1/4+1/5=3.28_

```

```

p("1+");
for(i=1;i<=5;i++)
{
  p("1/%d+",i,s=s+1.0/i);
}
p("\b=%.2f",s);

```

$$\frac{n}{5} \quad \frac{i}{1 \quad 2}$$

$$\frac{s}{1+1+0.5}$$

$$\underline{1} + 1/1 + 1/2 +$$

**Printing below series:**

n=10 → 1 2 3 9 4 5 6 18 7 8 9 27 10

The image shows two windows of the Turbo C++ (TC) IDE. The top window is the source code editor, displaying a C program that prints multiples of 3 up to a user-defined number. The bottom window is the output console, showing the program's execution with the input '10' and the resulting sequence of numbers: 1, 2, 3, 9, 4, 5, 6, 18, 7, 8, 9, 27, 10.

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 5 Col 9 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,i;_
clrscr();
printf("Enter the no "); scanf("%d",&n);
for(i=1;i<=n;i++)
{
printf("%4d",i); if(i%3==0)printf("%4d",i*3);
}
getch();
}
```

TC

Enter the no 10

1 2 3 9 4 5 6 18 7 8 9 27 10\_

```

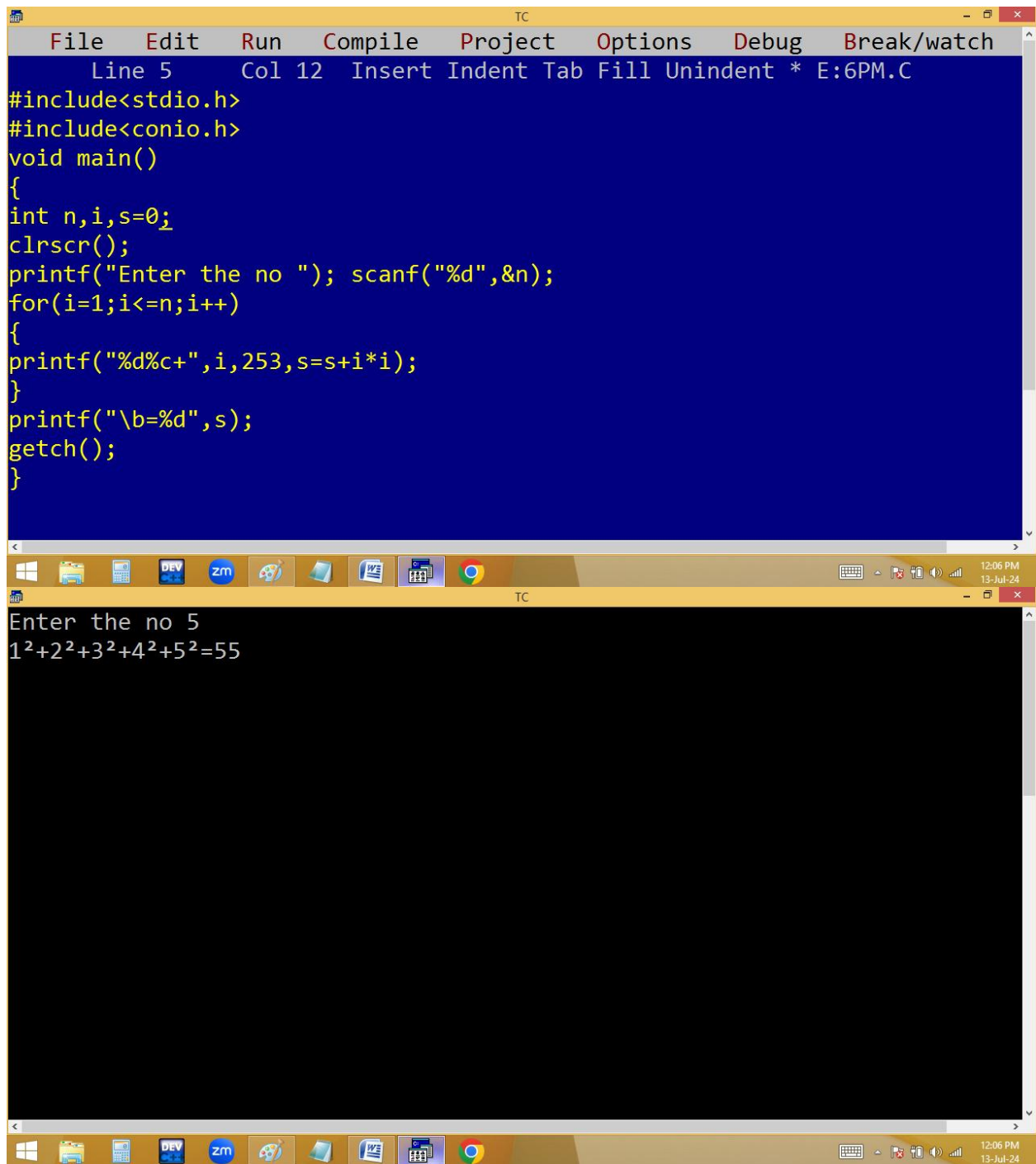
for(i=1;i<=10;i++)
{
p(i); 1 2 3 9 4 5 6 18
if(i%3==0) p( i*3);
}

```

$\frac{1}{1}$  2 3%3=0 4 5 6%3=0  
✓ ✓ ✓ 18  
7 8 9%3=0 10  
27

**Print below series:**

**$n=5 \Rightarrow 1^2 + 2^2 + 3^2 + 4^2 = 5^2 \Rightarrow 1 + 4 + 9 + 16$**   
 **$+ 25 = 55$**



```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 5 Col 12 Insert Indent Tab Fill Unindent * E:6PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int n,i,s=0;
clrscr();
printf("Enter the no "); scanf("%d",&n);
for(i=1;i<=n;i++)
{
printf("%d%c+",i,253,s=s+i*i);
}
printf("\b=%d",s);
getch();
}
```

Enter the no 5  
1<sup>2</sup>+2<sup>2</sup>+3<sup>2</sup>+4<sup>2</sup>+5<sup>2</sup>=55

```

for(i=1;i<=5;i++)
{
    s +
    p("%d%c+",i,253,s=s+i*i);
}
p("\b=%d",s);

```

i  
1

s  
 $0 + 1 \times 1 = 1$  ← 1  
 $1 + 2 \times 2 = 5$  2  
 $5 + 3 \times 3 = 14$  3  
 $14 + 4 \times 4 = 30$  4  
 $30 + 5 \times 5 = 55$  5

**ASCII TABLE:**

TC

FileEditRunCompileProjectOptionsDebugBreak/watch

Line 8Col 1InsertIndentTabFillUnindent \* E:6PM.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

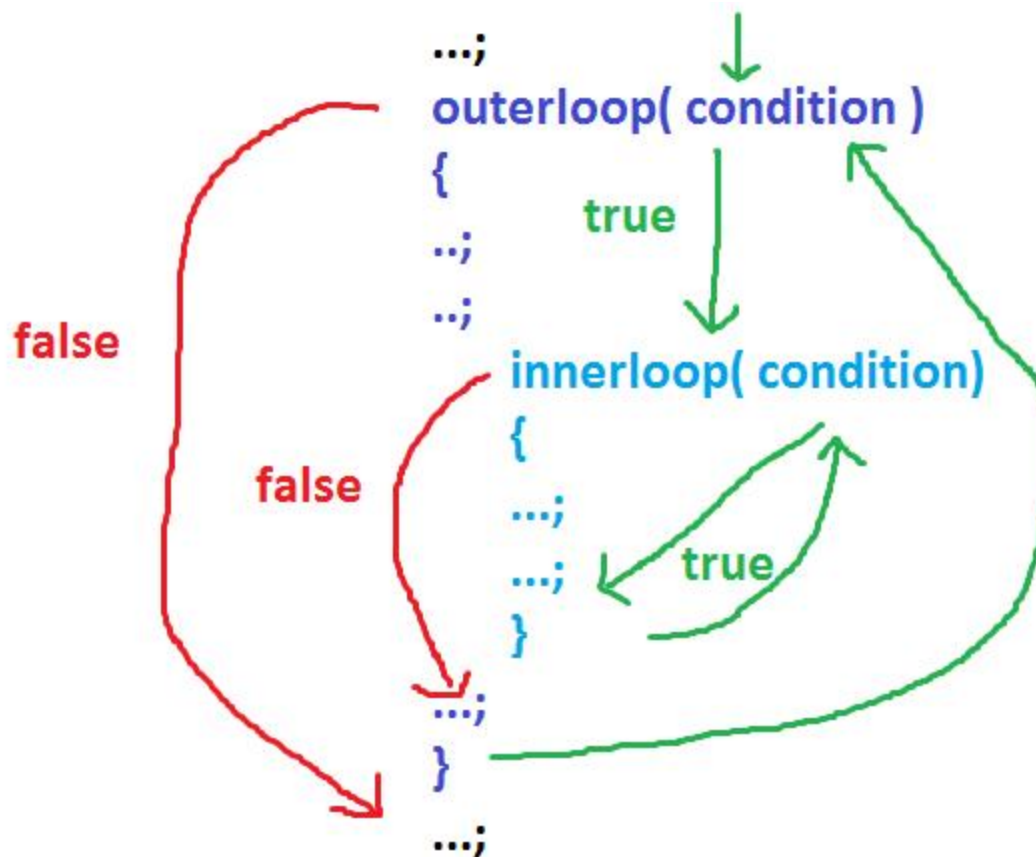
0=	1=	2=	3=	4=	5=	6=	7=	8=
	10=							
	14=	15=	16=	17=	18=	19=	20=	21=
22=	23=	24=	25=	26=	27=	28=	29=	30=
31=	32=	33=	34=	35=	36=	37=	38=	39=
41=	42=	43=	44=	45=	46=	47=	48=	49=
51=	52=	53=	54=	55=	56=	57=	58=	59=
61=	62=	63=	64=	65=	66=	67=	68=	69=
71=	72=	73=	74=	75=	76=	77=	78=	79=
81=	82=	83=	84=	85=	86=	87=	88=	89=
91=	92=	93=	94=	95=	96=	97=	98=	99=
101=	102=	103=	104=	105=	106=	107=	108=	109=
111=	112=	113=	114=	115=	116=	117=	118=	119=
121=	122=	123=	124=	125=	126=	127=	128=	129=
131=	132=	133=	134=	135=	136=	137=	138=	139=
141=	142=	143=	144=	145=	146=	147=	148=	149=
151=	152=	153=	154=	155=	156=	157=	158=	159=

161=í	162=ó	163=ú	164=ñ	165=Ñ	166=ä	167=ö	168=¿	169=ı
171=½	172=¼	173=ı	174=«	175=»	176=	177=	178=	179=ı
181=ı	182=ı	183=ı	184=ı	185=ı	186=ı	187=ı	188=ı	189=ı
191=ı	192=ı	193=ı	194=ı	195=ı	196=ı	197=ı	198=ı	199=ı
201=ı	202=ı	203=ı	204=ı	205=ı	206=ı	207=ı	208=ı	209=ı
211=ı	212=ı	213=ı	214=ı	215=ı	216=ı	217=ı	218=ı	219=ı
221=ı	222=ı	223=ı	224=ı	225=ı	226=ı	227=ı	228=ı	229=ı
231=ı	232=ı	233=ı	234=ı	235=ı	236=ı	237=ı	238=ı	239=ı
241=ı	242=ı	243=ı	244=ı	245=ı	246=ı	247=ı	248=ı	249=ı
251=ı	252=ı	253=ı	254=ı	255=ı				

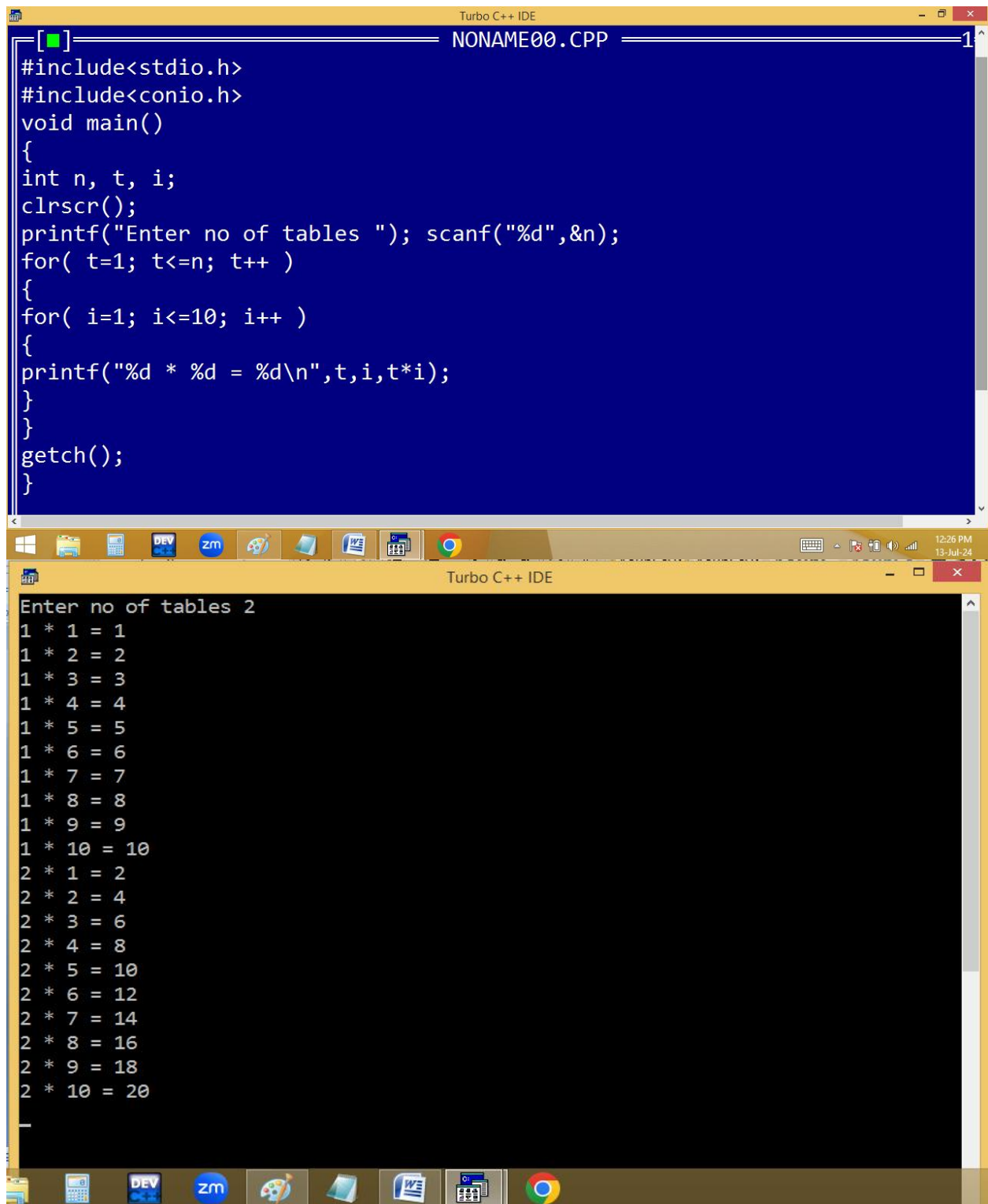
## NESTED LOOPS:

Loop within loop is called nested loop.





**Printing 1..n tables:**



```
#include<stdio.h>
#include<conio.h>
void main()
{
int n, t, i;
clrscr();
printf("Enter no of tables "); scanf("%d",&n);
for( t=1; t<=n; t++ )
{
for( i=1; i<=10; i++ )
{
printf("%d * %d = %d\n",t,i,t*i);
}
}
getch();
}
```

Enter no of tables 2

```
1 * 1 = 1
1 * 2 = 2
1 * 3 = 3
1 * 4 = 4
1 * 5 = 5
1 * 6 = 6
1 * 7 = 7
1 * 8 = 8
1 * 9 = 9
1 * 10 = 10
2 * 1 = 2
2 * 2 = 4
2 * 3 = 6
2 * 4 = 8
2 * 5 = 10
2 * 6 = 12
2 * 7 = 14
2 * 8 = 16
2 * 9 = 18
2 * 10 = 20
```

```
Turbo C++ IDE
NONAME00.CPP
1
#include<stdio.h>
#include<conio.h>
void main()
{
int n, t, i;
clrscr();
printf("Enter no of tables "); scanf("%d",&n);
for( t=1; t<=n; t++ )
{
for( i=1; i<=10; i++ )
{
printf("%d * %d = %d\n",t,i,t*i);
}
printf("Press Any Key for Next Table...");getch();
}
}

Turbo C++ IDE
Enter no of tables 2
1 * 1 = 1
1 * 2 = 2
1 * 3 = 3
1 * 4 = 4
1 * 5 = 5
1 * 6 = 6
1 * 7 = 7
1 * 8 = 8
1 * 9 = 9
1 * 10 = 10
Press Any Key for Next Table..._
```

```
Turbo C++ IDE
1 * 4 = 4
1 * 5 = 5
1 * 6 = 6
1 * 7 = 7
1 * 8 = 8
1 * 9 = 9
1 * 10 = 10
Press Any Key for Next Table...2 * 1 = 2
2 * 2 = 4
2 * 3 = 6
2 * 4 = 8
2 * 5 = 10
2 * 6 = 12
2 * 7 = 14
2 * 8 = 16
2 * 9 = 18
2 * 10 = 20
Press Any Key for Next Table...
```

```
Turbo C++ IDE
NONAME00.CPP
1
#include<stdio.h>
#include<conio.h>
void main()
{
int n, t, i;
clrscr();
printf("Enter no of tables "); scanf("%d",&n);
for( t=1; t<=n; t++ )
{
for( i=1; i<=10; i++ )
{
printf("%d * %d = %d\n",t,i,t*i);
}
printf("Press Any Key for Next Table...");getch();clrscr();
}
}

Turbo C++ IDE
Enter no of tables 2
1 * 1 = 1
1 * 2 = 2
1 * 3 = 3
1 * 4 = 4
1 * 5 = 5
1 * 6 = 6
1 * 7 = 7
1 * 8 = 8
1 * 9 = 9
1 * 10 = 10
Press Any Key for Next Table...
```

```
Turbo C++ IDE

2 * 1 = 2
2 * 2 = 4
2 * 3 = 6
2 * 4 = 8
2 * 5 = 10
2 * 6 = 12
2 * 7 = 14
2 * 8 = 16
2 * 9 = 18
2 * 10 = 20
Press Any Key for Next Table...
```

```
Turbo C++ IDE

#include<stdio.h>
#include<conio.h>
#include<dos.h>
void main()
{
    int n, t, i;
    clrscr();
    printf("Enter no of tables "); scanf("%d",&n);
    for( t=1; t<=n; t++ )
    {
        for( i=1; i<=10; i++ )
        {
            printf("%d * %d = %d\n",t,i,t*i);
        }
        printf("Please wait 3 seconds for next table ...");delay(3000);clrscr();
    }
}
```

```

#include<stdio.h>
#include<conio.h>
#include<dos.h>
void main()
{
int n, t, i;
clrscr();
printf("Enter no of tables "); scanf("%d",&n);
for( t=1; t<=n; t++ )
{
for( i=1; i<=10; i++ )
{
printf("%d * %d = %d\n",t,i,t*i);
delay(100);
}
}
}

```

```

for( t=1; t<=3; t++ )
{
for( i=1; i<=10; i++ )
{
p( t * i );
}
}

```

$t$	$i$	
3	1	$3 \times 1 = 3$
	2	$3 \times 2 = 6$
	3	$3 \times 3 = 9$
	$4 < 3$	

$1 \times 1 = 1$   
 $1 \times 2 = 2$

## Tables side by side:



```
#include<stdio.h>
#include<conio.h>
void main()
{
int n, t, i;
clrscr();
printf("Enter no of tables "); scanf("%d",&n);
for( i=1; i<=10; i++ )
{
for( t=1; t<=n; t++ )
{
printf("%d*%d=%d\t",t,i,t*i);
}
printf("\n");
}
getch();
}
```

```
Enter no of tables 9
1*1=1  2*1=2  3*1=3  4*1=4  5*1=5  6*1=6  7*1=7  8*1=8  9*1=9
1*2=2  2*2=4  3*2=6  4*2=8  5*2=10 6*2=12 7*2=14 8*2=16 9*2=18
1*3=3  2*3=6  3*3=9  4*3=12 5*3=15 6*3=18 7*3=21 8*3=24 9*3=27
1*4=4  2*4=8  3*4=12 4*4=16 5*4=20 6*4=24 7*4=28 8*4=32 9*4=36
1*5=5  2*5=10 3*5=15 4*5=20 5*5=25 6*5=30 7*5=35 8*5=40 9*5=45
1*6=6  2*6=12 3*6=18 4*6=24 5*6=30 6*6=36 7*6=42 8*6=48 9*6=54
1*7=7  2*7=14 3*7=21 4*7=28 5*7=35 6*7=42 7*7=49 8*7=56 9*7=63
1*8=8  2*8=16 3*8=24 4*8=32 5*8=40 6*8=48 7*8=56 8*8=64 9*8=72
1*9=9  2*9=18 3*9=27 4*9=36 5*9=45 6*9=54 7*9=63 8*9=72 9*9=81
1*10=10 2*10=20 3*10=30 4*10=40 5*10=50 6*10=60 7*10=70 8*10=80 9*10=90
```



```

    for( i=1; i<=10; i++)
    {
        for( t=1; t<=3; t++)
        {
            p( t*i\ "t");
        }
        p("\n");
    }

```

i	t	j
3	1 2 3 4	1
	1 2 3 4	2
		3
		=
		10

$1 \times 1 = 1$  —  $2 \times 1 = 2$  —  $3 \times 1 = 3$  —  
 $1 \times 2 = 2$        $2 \times 2 = 4$        $3 \times 2 = 6$

$1 \times 10 = 10$  — — —