

Printing a 3 digit no in reverse order without using loops:

The image shows a screenshot of the Turbo C++ (TC) IDE. The top window is the source code editor, which has a blue background and contains the following C code:

```
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 9 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
main()
{
int n=123; /* var dec & initialization */
clrscr();
printf("%d reverse is %d",n, n%10); /* 123 reverse is 3 */
n=n/10; /* removes last digit 3 i.e. n=12 */
printf("%d%d",n%10,n/10); /* 12%10=2, 12/10=1 */
getch();_
}
```

The bottom window is the output console, which has a black background and displays the result of the program's execution:

```
123 reverse is 321_
```

Both windows have a yellow title bar with the text "TC". The Windows taskbar is visible at the bottom of the screen, showing various application icons and the system clock indicating 11:26 AM on 11-Jun-24. An "Activate Windows" watermark is present in the bottom right corner of both the code and output windows.

$123 \% 10 = 3$ print

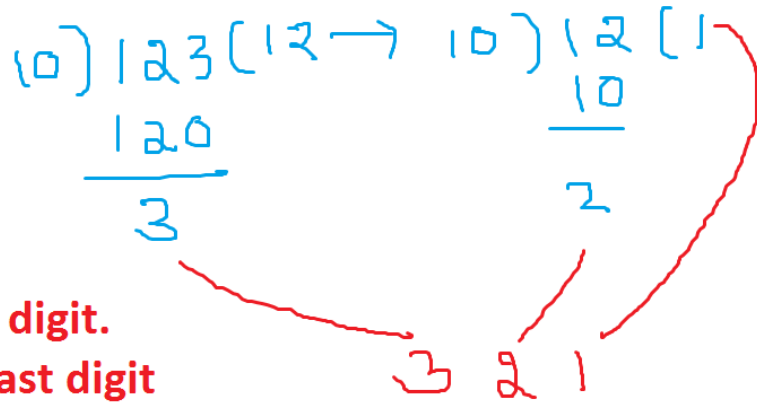
$123 / 10 = 12$

$12 \% 10 = 2$ print

$12 / 10 = 1$ print

Any $\text{no} \% 10$ gives last digit.

Any $\text{no} / 10$ removes last digit



Relational operators [== (comparison), <, >, <=, >=, != (not equal)]:

They are used to check the given condition or expression is true or false. If condition true always it return 1 and condition false it return 0.

TC

Line 18 Col 42 Insert Indent Tab Fill Unindent * E:11AM.C

```
#include<stdio.h>
#include<conio.h>
main()
{
clrscr();
printf("%d\n", 4==4 );
printf("%d\n", 1.4==1.4 );
printf("%d\n", 1.0==1 );
printf("%d\n", 0.1==.10 );
printf("%d\n", 'a'==65 );
printf("%d\n", 'A'-32=='A' );
printf("%d\n", 'A'>'b' );    /* 65 > 98 */
printf("%d\n", 'a'!='b' );
printf("%d\n", 0 != '0' );
printf("a addr=%u, a addr=%u\n","a","a");
printf("%d\n", "a" == "a" );
getch();
}
```

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11:44 AM
11-Jun-24

1
1
1
1
0
1
0
1
1
a addr=462, a addr=464
0

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11:44 AM
11-Jun-24

Operator precedence / Operator priority

(ASSOCIATION OF OPERATORS)

1. ()
2. +, -, ! (sign operators, unary operators)
3. ++, -- (pre increment & decrement)
4. *, /, %
5. +, - (Binary)
6. ==, !=
7. &&
8. ||
9. ?: (ternary operator)
10. =
11. ++, -- (Post increment & decrement)
12. , (comma)

TC

File Edit Run Compile Project Options Debug Break/watch

Line 15 Col 27 Insert Indent Tab Fill Unindent * E:11AM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
printf("%d\n", 5+3/2==4 ); /* op precedence / priority / association */
printf("%d\n", (5+3)/2==4 );
printf("%d\n", 5*3/2==7 );
printf("%d\n", 5/3*2==2 );
printf("%d\n", 5/3%2==1 );
printf("%d\n", 5-3+2==4 );
printf("%d\n", 2+3*4+5==25);
printf("%d\n", 2+3*4+5==19);
printf("%d\n", 2+3*4+5==45);
printf("%d\n", (2+3)*(4+5)==45);
getch();
}
```

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12:09 PM
11-Jun-24

TC

```
0
1
1
1
1
1
1
0
1
0
1
```

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12:10 PM
11-Jun-24

Logical operators:

1. && - logical and
2. || - Logical or
3. ! – Logical not

&& , || are used to combine two or more expressions in to a single expression.

! operator is used for negation. i.e. true become false and false become true.

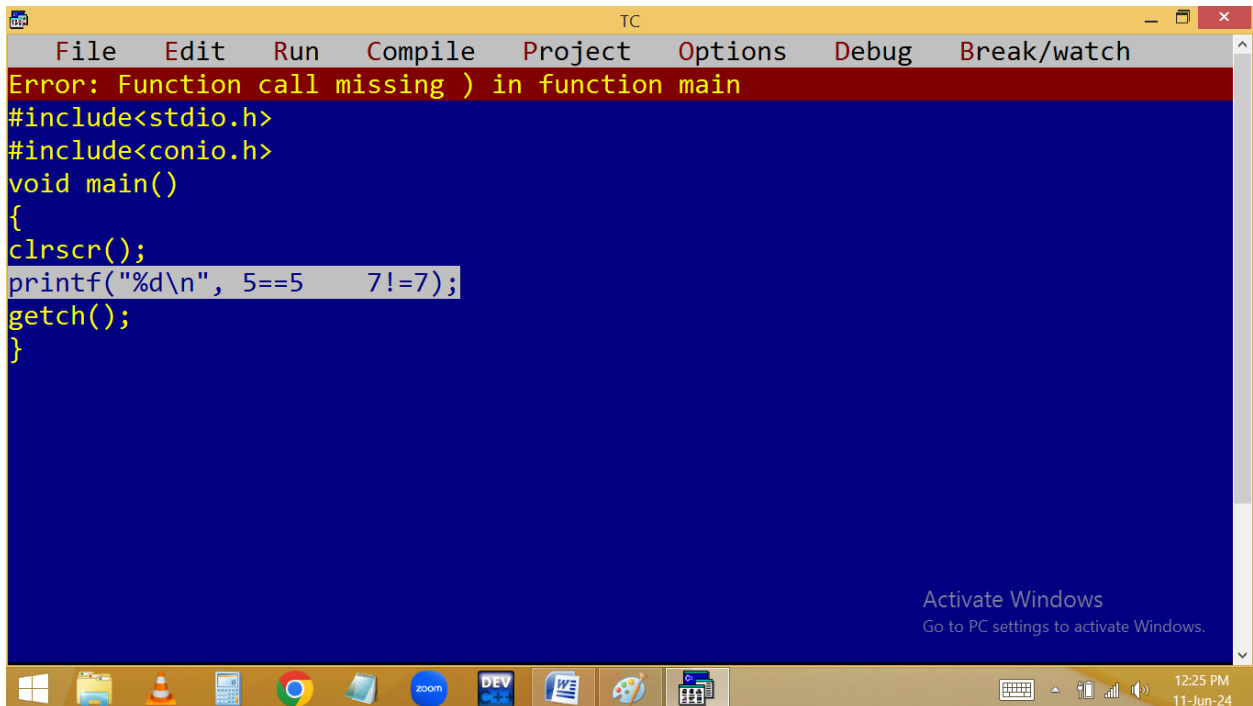
Note: In C other than 0 anything is 1 i.e. true

Truth tables:

Operator	Expression1	Expression2	Result
&&	1 - true	1	1
	1	0	0
	0	1	0
	0	0	0
	1	1	1
	1	0	1
	0	1	1
	0	0	0

!true = false

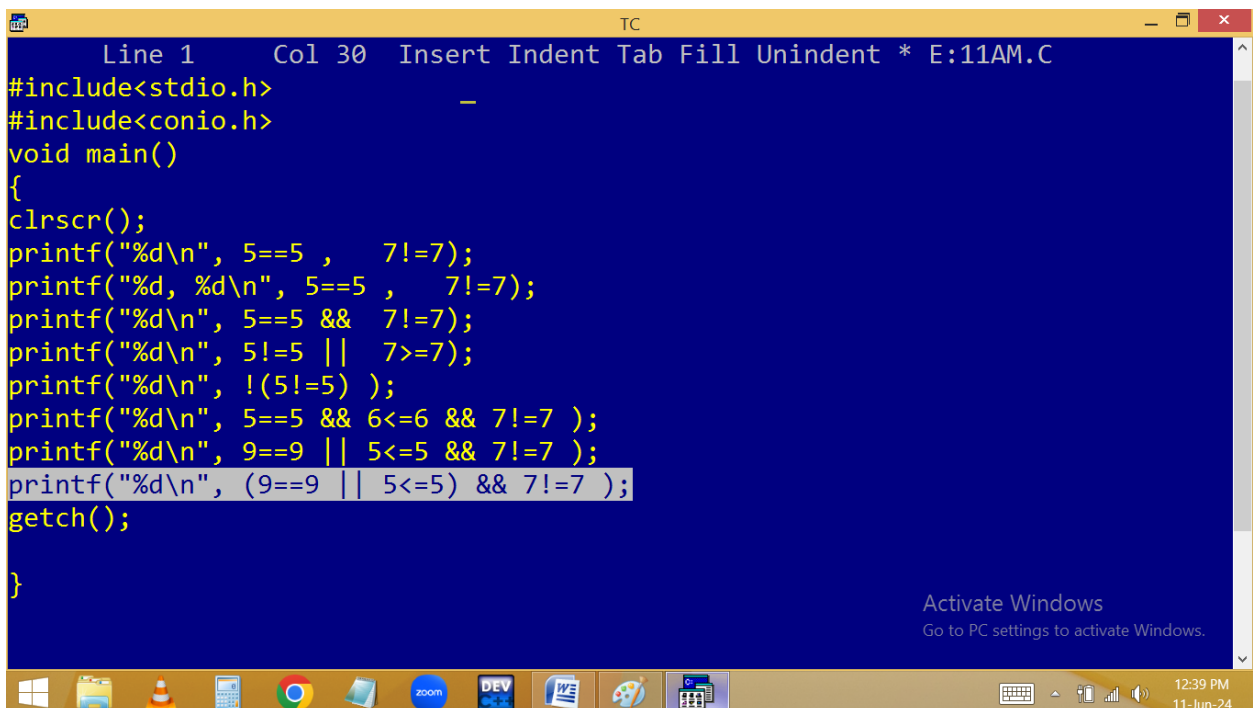
!false = true



The screenshot shows the Turbo C++ (TC) IDE with a menu bar (File, Edit, Run, Compile, Project, Options, Debug, Break/watch) and a toolbar. The main window has a blue background with yellow text. A red error message banner at the top reads "Error: Function call missing) in function main". The code in the editor is as follows:

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
printf("%d\n", 5==5 7!=7);
getch();
}
```

The taskbar at the bottom shows various application icons and the system clock indicating 12:25 PM on 11-Jun-24. An "Activate Windows" watermark is visible in the bottom right corner of the IDE window.



The screenshot shows the Turbo C++ (TC) IDE with a menu bar (File, Edit, Run, Compile, Project, Options, Debug, Break/watch) and a toolbar. The main window has a blue background with yellow text. The code in the editor is as follows:

```
Line 1 Col 30 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
printf("%d\n", 5==5 , 7!=7);
printf("%d, %d\n", 5==5 , 7!=7);
printf("%d\n", 5==5 && 7!=7);
printf("%d\n", 5!=5 || 7>=7);
printf("%d\n", !(5!=5) );
printf("%d\n", 5==5 && 6<=6 && 7!=7 );
printf("%d\n", 9==9 || 5<=5 && 7!=7 );
printf("%d\n", (9==9 || 5<=5) && 7!=7 );
getch();
}
```

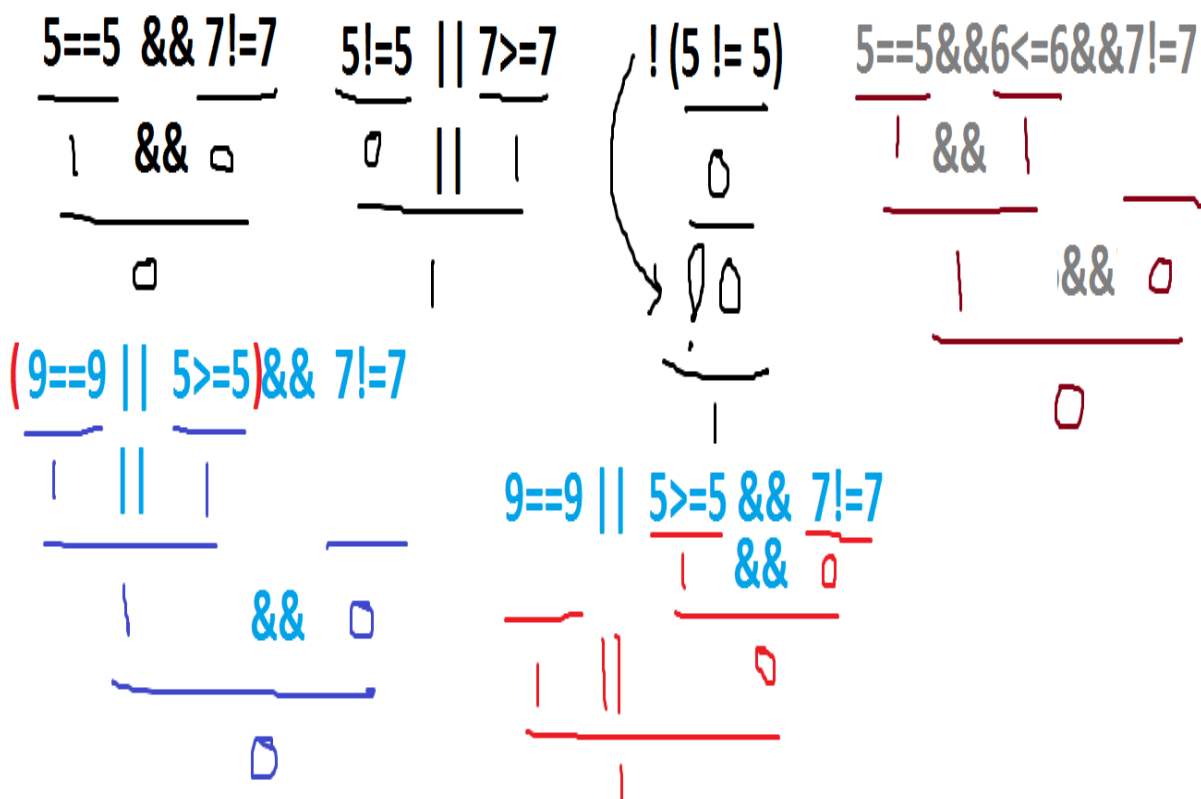
The taskbar at the bottom shows various application icons and the system clock indicating 12:39 PM on 11-Jun-24. An "Activate Windows" watermark is visible in the bottom right corner of the IDE window.

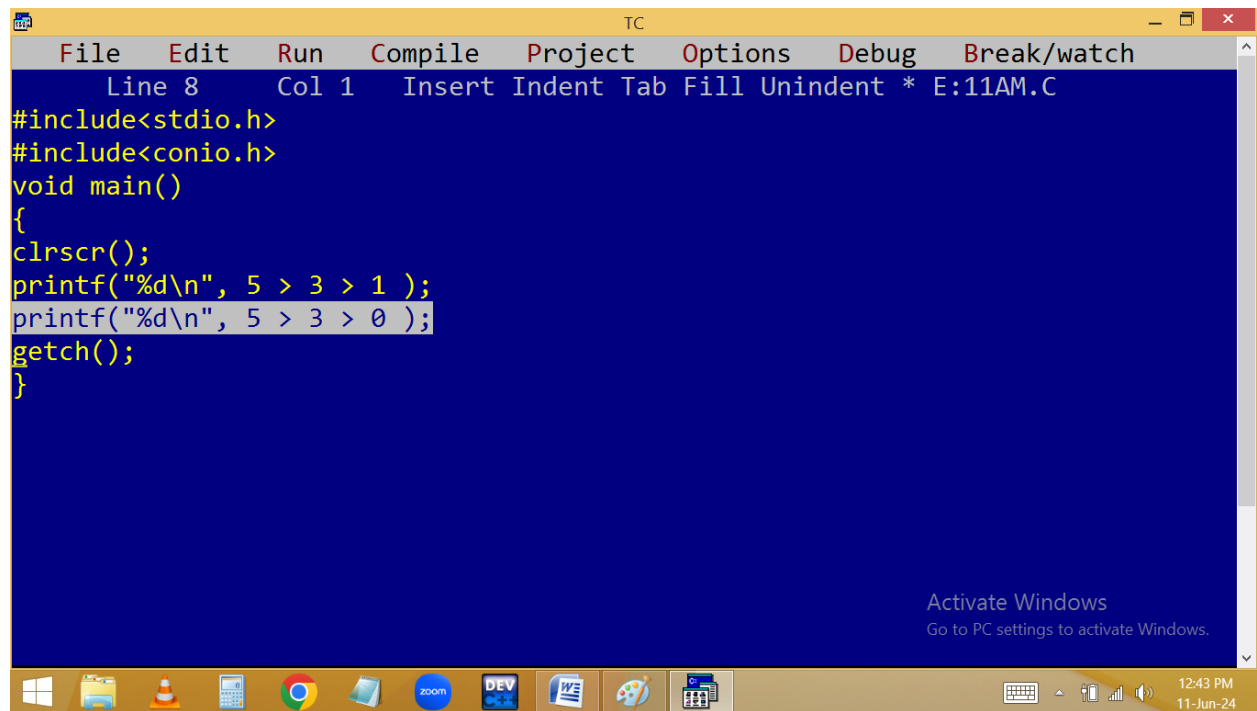

```

1
1, 0
0
1
1
0
1
0

```

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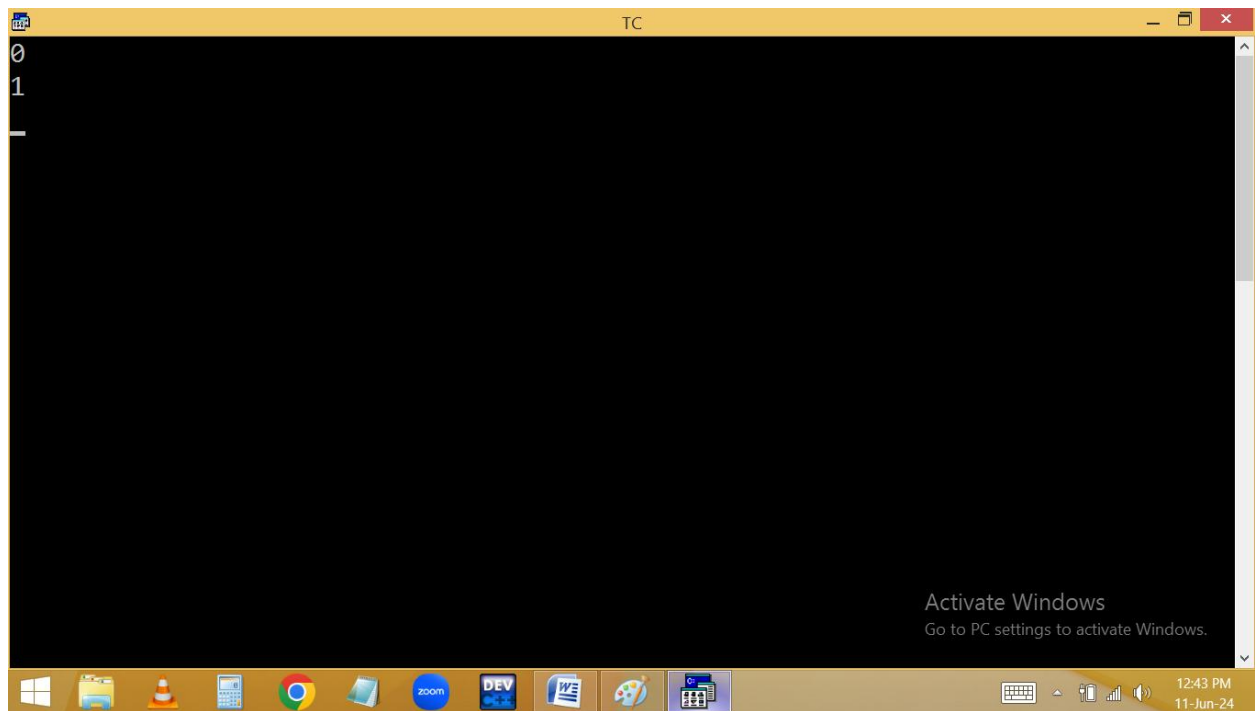




```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 1 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
printf("%d\n", 5 > 3 > 1 );
printf("%d\n", 5 > 3 > 0 );
getch();
}

Activate Windows
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12:43 PM
11-Jun-24
```



5 > 3 > 1
1 > 1
—
0