

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 15 Col 13 Insert Indent Tab Fill Unindent * E:4PMNET.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=2,b;
clrscr();
b=a++ + a++ + a++;
printf("a=%d, b=%d\n", a, b );
a=2;
b=++a + ++a + ++a;
printf("a=%d, b=%d\n", a, b );
getch();
}
/* a=5, b=8
a=5, b=15_*/
```

a=2  
b= a++ + a++ + a++;  
priority: +, =, a++  
1. b = a + a + a ==> 2 + 2 + 2  
2. b = 6  
3. a++==>a=3, a++==>a=4, a++==>a=5

a=2  
b= ++a + ++a + ++a;  
priority: ++a, +, =  
1. ++a==>a=3, ++a==>a=4, ++a==>a=5  
2. b = a+a+a ==> 5+5+5  
3. b = 15

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 15 Col 7 Insert Indent Tab Fill Unindent * E:4PMNET.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=2,b;
clrscr();
b=++a + a++ * ++a;
printf("a=%d, b=%d\n", a, b );
a=2;
b=++a + a++ + a-- + --a;
printf("a=%d, b=%d\n", a, b );
getch();
}
/* a=5, b=20
a=2, b=8 */

Activate Windows
Go to PC settings to activate Windows.
```

a=2  
b = ++a + a++ \* ++a;  
**priority:** ++a, \*, +, =, a++  
1. ++a ==> a=3, ++a==> a=4  
2. b = a + a \* a ==> 4 + 4\*4  
3. b = 4 + 16 ==> 20  
4. b = 20  
5. a++ ==> a=5

a=2  
b = ++a + a++ + a-- + --a;  
**priority:** ++a, --a, +, =, a++, a--  
1. ++a ==> a=3  
2. --a ==> a=2  
3. b = a + a + a + a ==> 2+2+2+2  
4. b = 8  
5. a++ ==> a=3  
6. a-- ==> a=2

## Operator precedence

(PRIORITY OF OPERATORS)

++a, --a, +, =, a++, a--

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 14 Col 8 Insert Indent Tab Fill Unindent * E:4PMNET.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=10;
clrscr();
a++/2;
printf("a=%d\\n", a );
++a/2;
printf("a=%d", a );
getch();
}
/* a=11
a=12_*/

Activate Windows
Go to PC settings to activate Windows.
```

**a=10**

**a++/2;**

**priority:** /, a++

1. **a/2==>10/2=5** [ 5 not stored because of = not used i.e. **a=10**]

2. **a++ ==>a=11**

**p(a) ==> a=11**

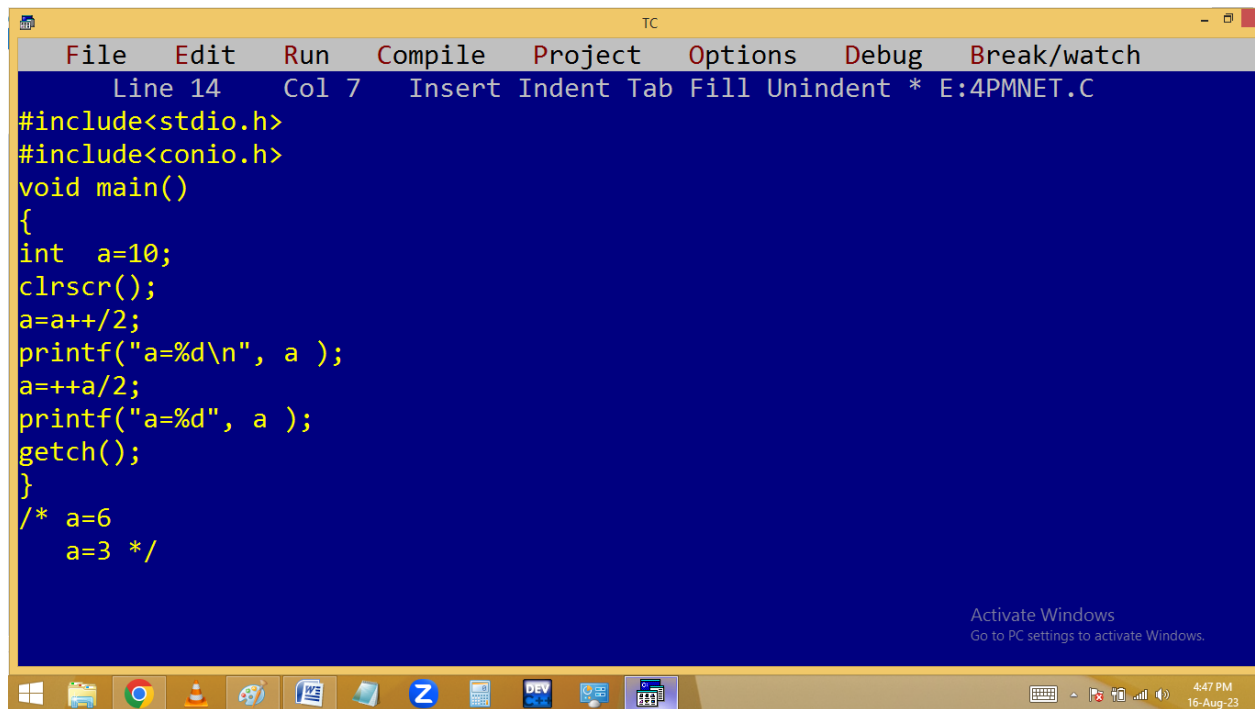
**++a/2;**

**priority:** ++a, /

1. **++a==> a=12**

2. **a/2==>12/2==>6** [ 6 not stored because of = not used i.e. **a=12** ]

**p(a) ==> a=12**



```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 14 Col 7 Insert Indent Tab Fill Unindent * E:4PMNET.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=10;
clrscr();
a=a++/2;
printf("a=%d\n", a );
a=++a/2;
printf("a=%d", a );
getch();
}
/* a=6
a=3 */

Activate Windows
Go to PC settings to activate Windows.

Windows taskbar icons: File Explorer, Google Chrome, VLC, Paint, Word, Z, Calculator, DEV, IDE, Task Manager, Network, Volume, Keyboard.
System clock: 4:47 PM, 16-Aug-23
```

**a=10**

**a=a++/2;**

**priority:** /, =, a++

1. **a=a/2==> 10/2=5**

2. **a=5**

3. **a++ ==> a=6**

**a=++a/2;**

**priority:** ++a, /, =

1. **++a==> a=7**

2. **a=a/2 ==> 7/2=3**

3. **a=3**

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 14 Col 5 Insert Indent Tab Fill Unindent * E:4PMNET.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=10;
clrscr();
printf("a=%d\\n", a++/2 );
printf("a=%d\\n", ++a/2 );
printf("a=%d",a);
getch();
}
/* a=5
a=6
a=12*/

Activate Windows
Go to PC settings to activate Windows.
```

**a=10**

**p("%d", a++/2); priority: /, printf, a++**

**1. a/2==>10/2=5**

**2. p(5) ==> 5 printed not stored i.e. a=10**

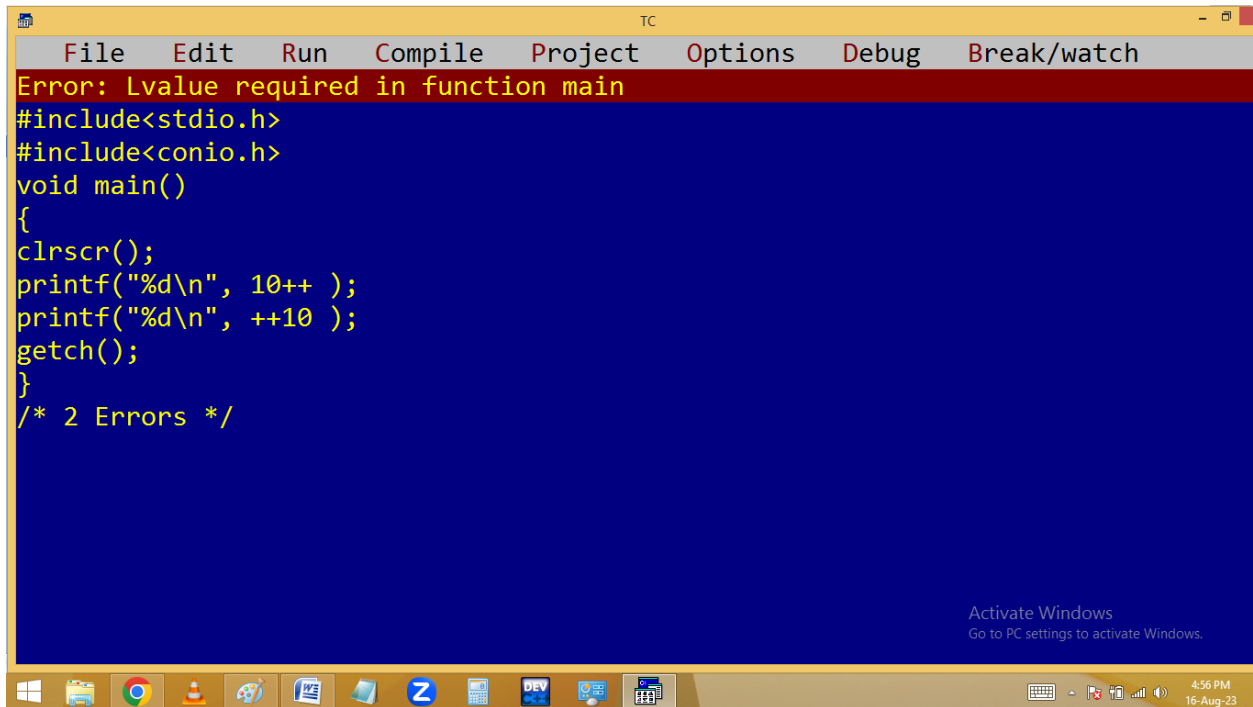
**3. a++ ==> a=11**

**p("%d",++a/2); priority:++a, /, printf**

**1. ++a ==> a=12**

**2. a/2==>12/2=6**

**3.p(6) ==> 6 not stored only printed i.e. a=12**



The screenshot shows a Turbo C++ (TC) IDE window. The title bar reads 'TC'. The menu bar includes 'File', 'Edit', 'Run', 'Compile', 'Project', 'Options', 'Debug', and 'Break/watch'. A red error banner at the top states 'Error: Lvalue required in function main'. The code editor has a blue background and contains the following C code:

```
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
printf("%d\n", 10++ );
printf("%d\n", ++10 );
getch();
}
/* 2 Errors */
```

The Windows taskbar is visible at the bottom, showing various application icons and the system clock indicating 4:56 PM on 16-Aug-23.

**a=10**

**a++ ==> a=a+1 ==> a=10+1 ==> a=11**

**10++ ==> 10=10+1 ==> 10=11**

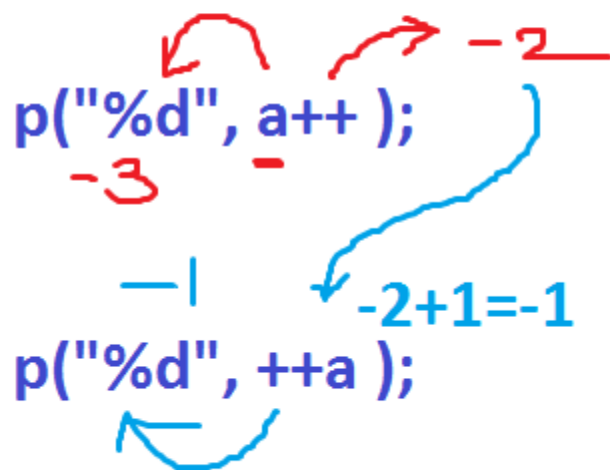
**10 is a constant and we can't change a constant**



```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 6 Insert Indent Tab Fill Unindent * E:4PMNET.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=-3;
clrscr();
printf("%d\n", a++ );
printf("%d\n", ++a );
getch();
}
/* -3
   -1
  */
```

Activate Windows  
Go to PC settings to activate Windows.

**a=-3**



TC

File Edit Run Compile Project Options Debug Break/watch

Error: Lvalue required in function main

```
#include<stdio.h>
#include<conio.h>
void main()
{
int  a=1,b=2,c=10;
clrscr();
c = (a++ + b++)++;
printf("a=%d, b=%d, c=%d\n", a,b,c );
c = ++(++a + ++b);
printf("a=%d, b=%d, c=%d", a,b,c );
getch();
}
/*2 errors

Any expression result is constant. we can't perform ++/-- on constants */
*/
```

Activate Windows  
Go to PC settings to activate Windows.

5:08 PM  
16-Aug-23

TC

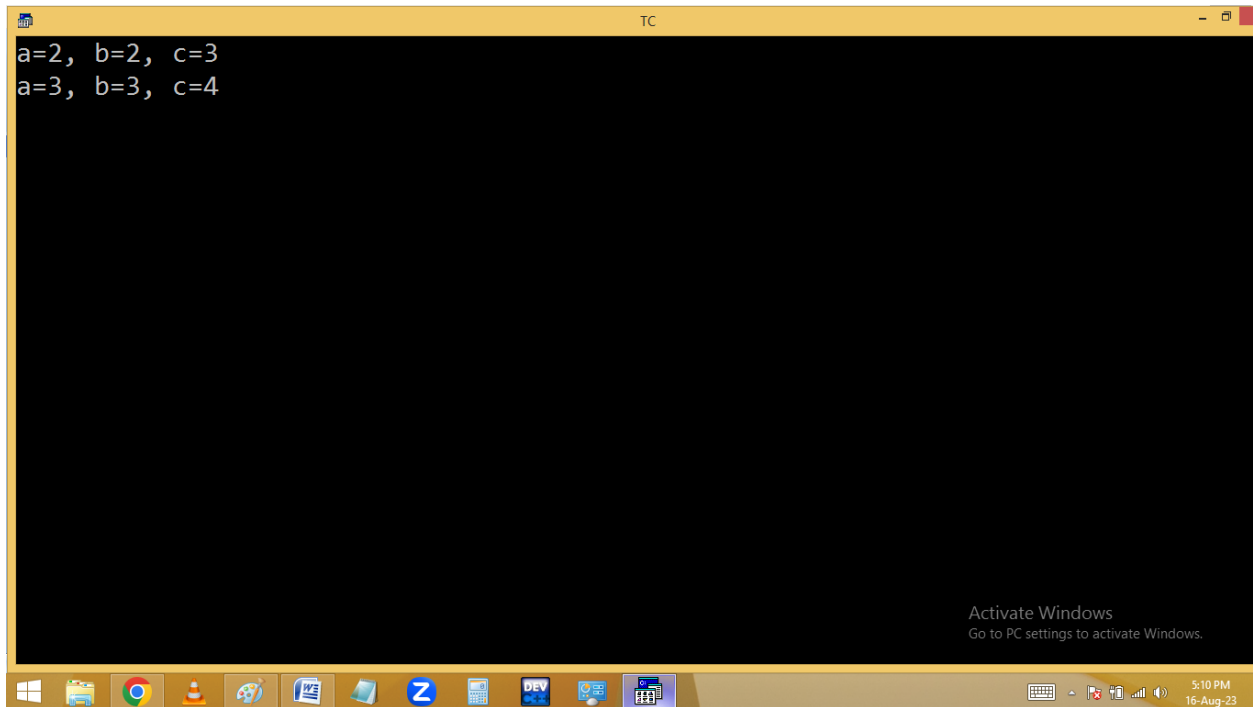
File Edit Run Compile Project Options Debug Break/watch

Line 13 Col 1 Insert Indent Tab Fill Unindent \* E:4PMNET.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
int  a=1,b=2,c=10;
clrscr();
c = a+++b;
printf("a=%d, b=%d, c=%d\n", a,b,c );
c = a+++b++;
printf("a=%d, b=%d, c=%d", a,b,c );
getch();
}
—
```

Activate Windows  
Go to PC settings to activate Windows.

5:10 PM  
16-Aug-23



a=1   b=2   c=10

c = a++b; priority: +, =, a++

1. c = a + b ==> 1 + 2

2. c = 3

3. a++ ==> a=2

a=2   b=2   c=3

c=a+++b++; priority: +, =, a++, b++

1. c = a + b ==> 2+2

2. c = 4

3. a++ ==> a=3

4. b++ ==> b=3

```
Line 12 Col 17 Insert Indent Tab Fill Unindent * E:4PMNET.C
#include<stdio.h>
#include<conio.h>
void main()
{
int  a=1,b=9;
clrscr();
a=a++ + ++b;
b=++a + b++;
printf("a=%d, b=%d", a,b );
getch();
}
/* a=13, b=24 */
```

**a=1      b=9**

**a= a++ + ++b;**

**priority: ++b, +, =, a++**

**1. ++b ==> b=10**

**2. a = a + b ==> 1+10**

**3. a = 11**

**4. a++ ==> a=12**

**a=12      b=10**

**b = ++a + b++;**

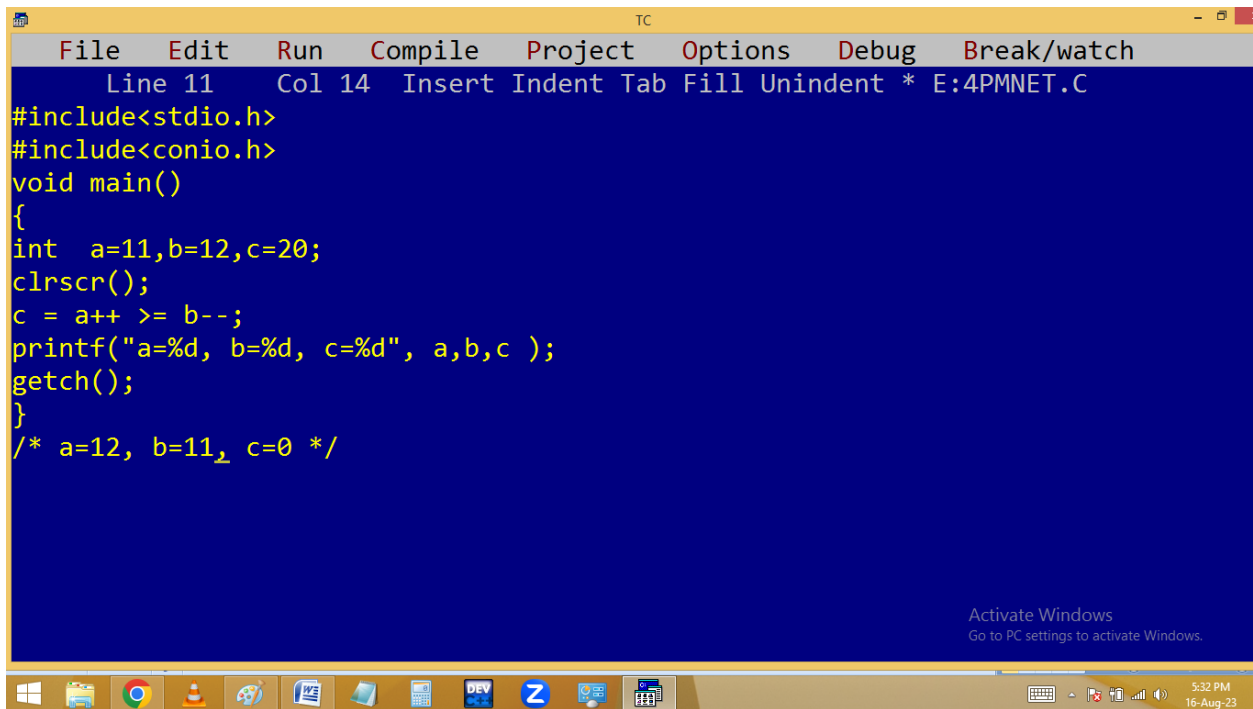
**priority: ++a, +, =, b++**

**1. ++a ==> a=13**

**2. b = a + b ==> 13+10**

**3. b=23**

**4. b++ ==> b=24**



```
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 14 Insert Indent Tab Fill Unindent * E:4PMNET.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=11,b=12,c=20;
clrscr();
c = a++ >= b--;
printf("a=%d, b=%d, c=%d", a,b,c );
getch();
}
/* a=12, b=11, c=0 */
```

**a=11      b=12      c=20**

**c = a++ >= b--;**

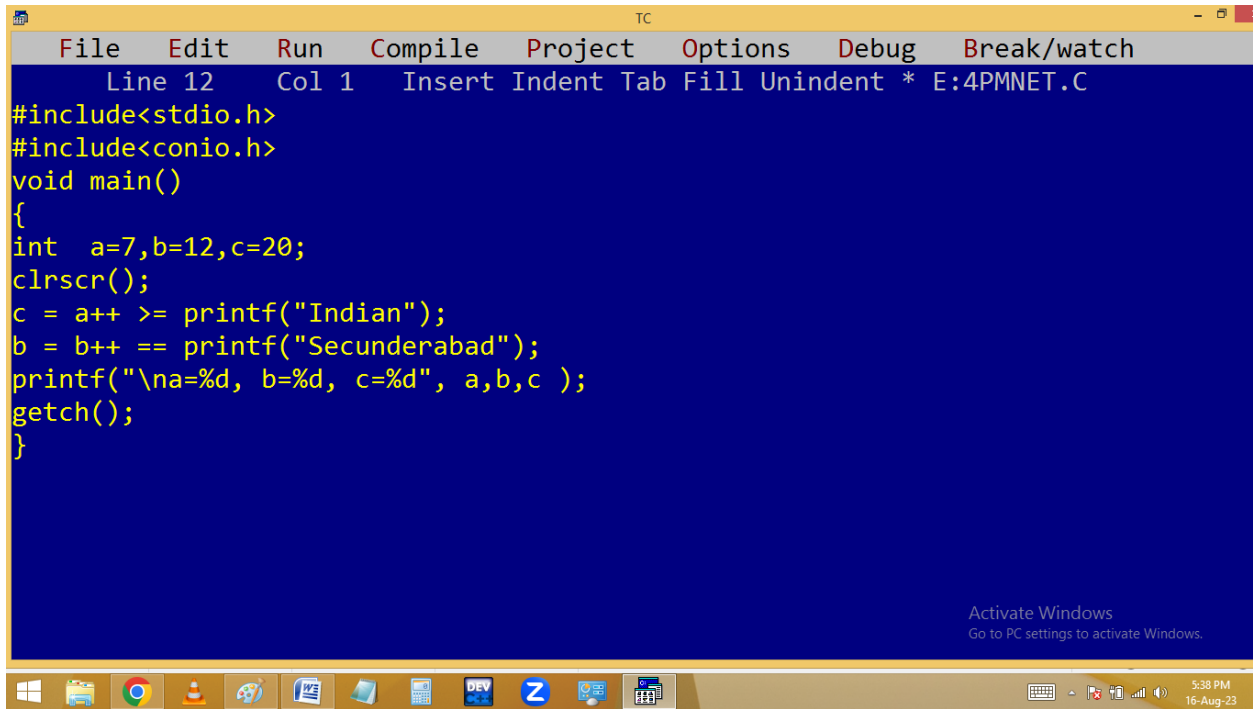
**priority: >=, =, a++, b--**

**1. c = a>=b ==> 11>=12 ==> false ==> 0**

**2. c = 0**

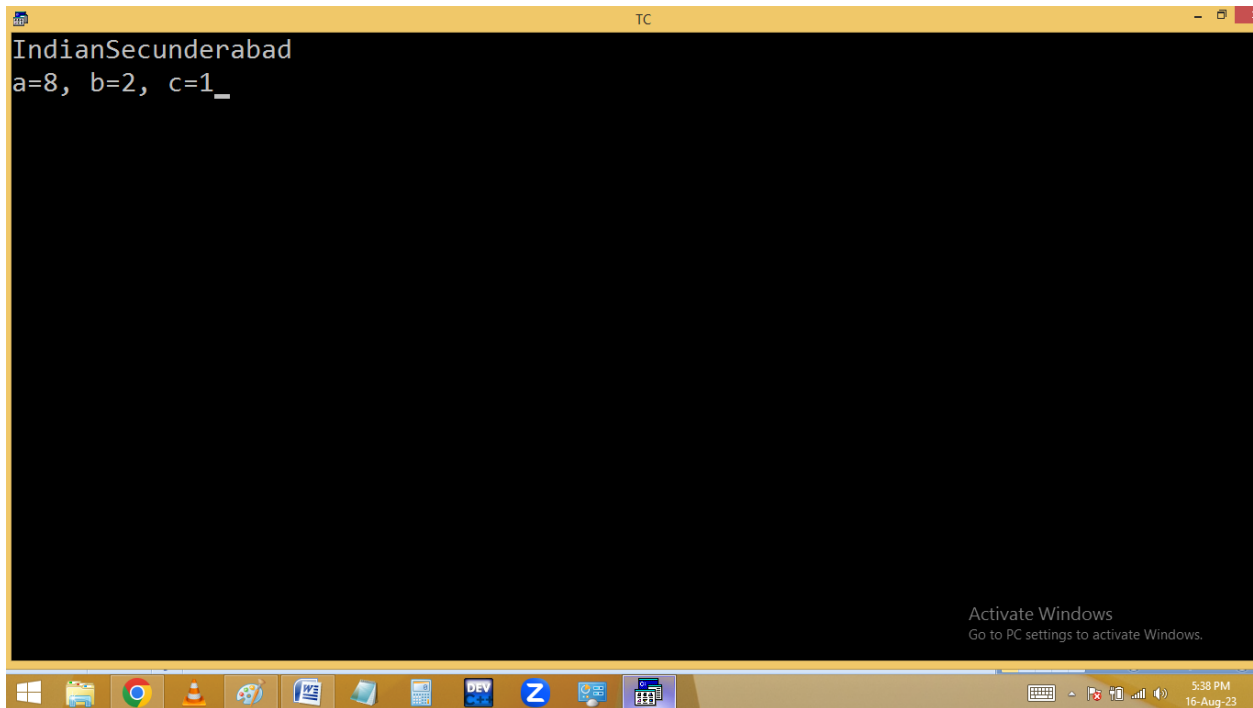
**3. a++ ==> a=12**

**4. b-- ==> b=11**



```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 1 Insert Indent Tab Fill Unindent * E:4PMNET.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=7,b=12,c=20;
clrscr();
c = a++ >= printf("Indian");
b = b++ == printf("Secunderabad");
printf("\na=%d, b=%d, c=%d", a,b,c );
getch();
}
```

Activate Windows  
Go to PC settings to activate Windows.



```
TC
IndianSecunderabad
a=8, b=2, c=1_

Activate Windows  
Go to PC settings to activate Windows.
```

5:38 PM  
16-Aug-23

~~a=7~~ <sup>8</sup>    b=12    ~~c=20~~ |

c = a++ >= p("Indian");

7 >= 6

↑

a=8    b=~~12~~    c=1

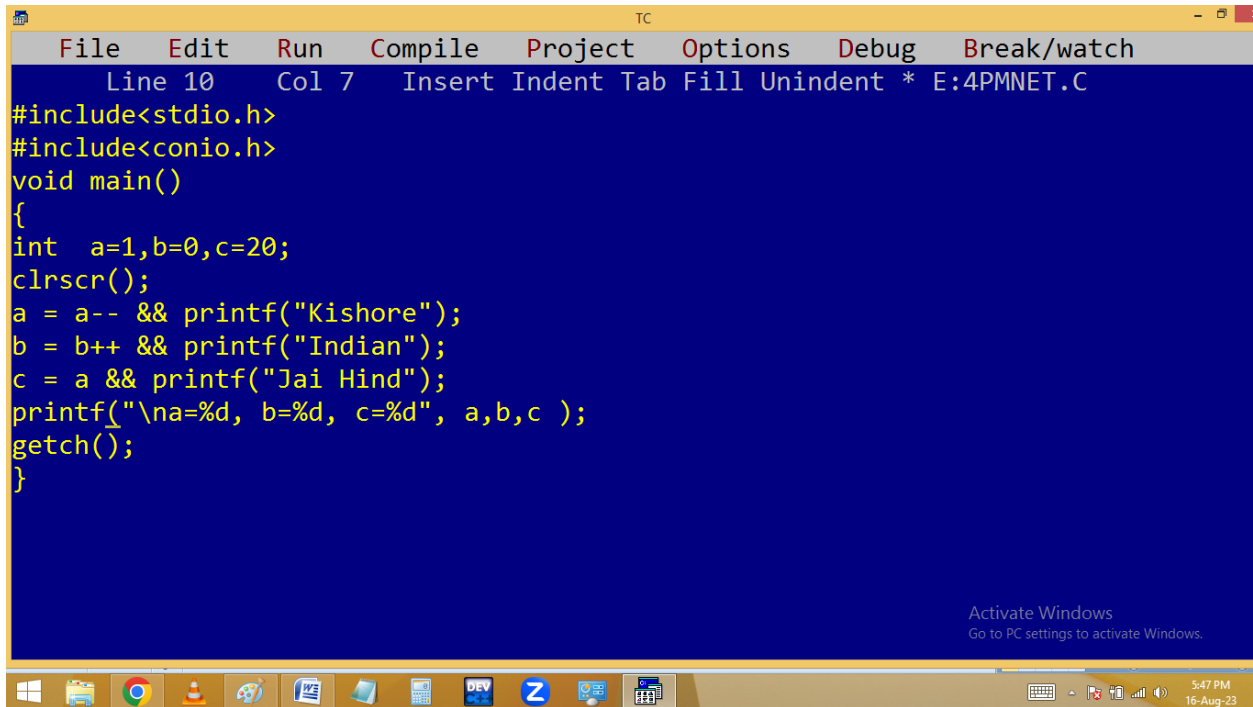
X<sub>2</sub>

<sup>12</sup>

b = b++ == p("Secunderabad");

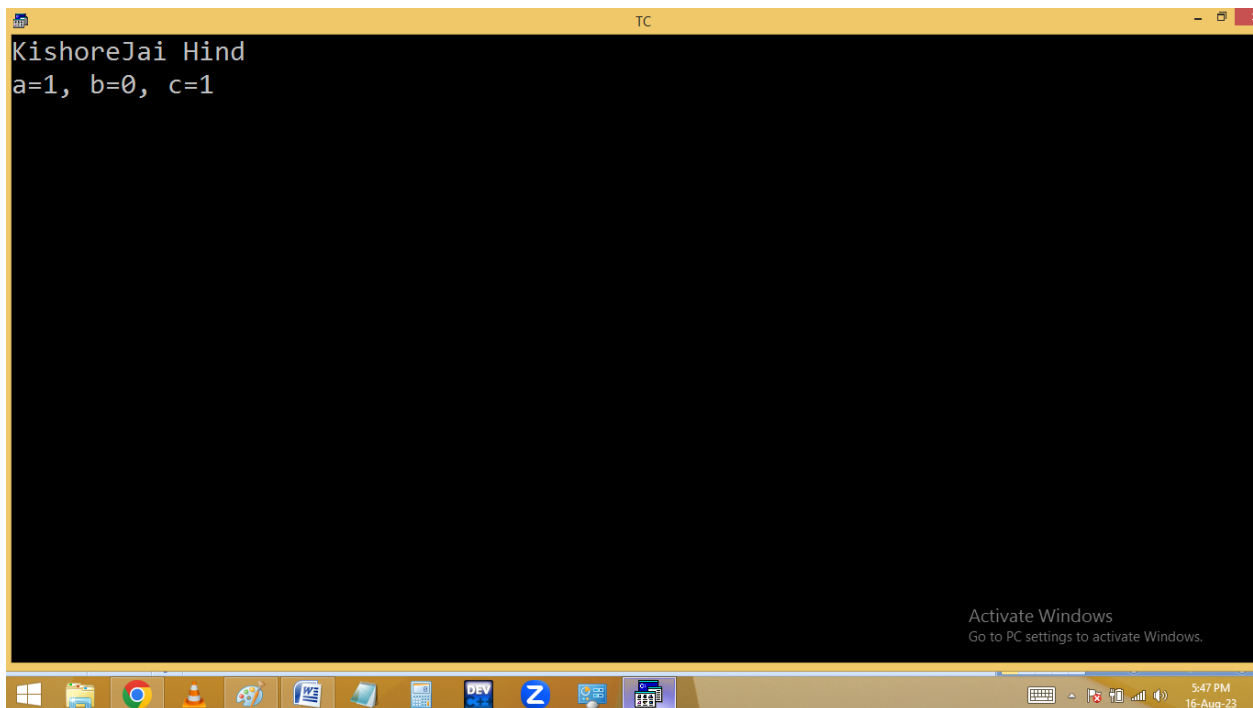
12 == 12

↑



```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 10 Col 7 Insert Indent Tab Fill Unindent * E:4PMNET.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=1,b=0,c=20;
clrscr();
a = a-- && printf("Kishore");
b = b++ && printf("Indian");
c = a && printf("Jai Hind");
printf("\na=%d, b=%d, c=%d", a,b,c );
getch();
}
```

Activate Windows  
Go to PC settings to activate Windows.



```
TC
KishoreJai Hind
a=1, b=0, c=1
```

Activate Windows  
Go to PC settings to activate Windows.



