

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 16 Col 3 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=5, b;
clrscr();
b = a++ + a++ + a++;
printf("a=%d, b=%d\n",a,b);
a=5;
b = ++a + ++a + ++a;
printf("a=%d, b=%d",a,b);
getch();
}
/* a=8 b=15
a=8 b=24
*/
```

a=5

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

priority: +, =, a++

1. b = a+a+a ==> 5+5+5

2. b = 15

3. a++ ==> a=6, a++ ==> a=7, a++ ==> a=8

a=5

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

priority: ++a, + =

1. ++a ==> a=6, ++a==>a=7, ++a==> a=8

2. b= a+a+a ==> 8+8+8

3. b=24

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 15 Col 13 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=5, b;
clrscr();
b = ++a + a++ * ++a;
printf("a=%d, b=%d\n",a,b);
a=5;
b = ++a + a-- + --a + a++;
printf("a=%d, b=%d",a,b);
getch();
}
/* a=8 b=56
   a=5 b=20_
*/
```

a=5
b=++a + a++ * ++a;
priority: ++a, *, +, =, a++
1. ++a==>a=6, ++a==?a=7
2. b=a+a*a; ==> 7+7*7
3. b = 7+49
4. b = 56
5. a++ ==> a=8

a=5
b = ++a + a-- + --a + a++;
priority: ++a, --a, +, =, a++, a--
1. ++a==>a=6
2. --a==>a=5
3. b = a+a+a+a==> 5+5+5+5
4. b=20
5. a++ ==> a=6
6. a-- ==> a=5

Operator precedence

(PRIORITY 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)

```
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 14 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=9, b=1;
clrscr();
a = a++ + ++b;
b = ++a + b++;
printf("a=%d, b=%d\\n",a,b);
getch();
}
/* a=13 b=16_*/
```

a=9, b=1

a = a++ + ++b;

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

1. ++b ==> b=2

2. a = a + b ==> 9+2

3. a=11

4. a++ ==> a=12

a=12, b=2

b = ++a + b++

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

1. ++a ==> a=13

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

3. b = 15

4. b++ ==> b=16

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 19 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=9, b=1,c=20;
clrscr();
c = a+++b;
printf("a=%d, b=%d, c=%d",a,b,c);
getch();
}
/* a=10 b=1, c=10 */

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

a=9 **b=1** **c=20**

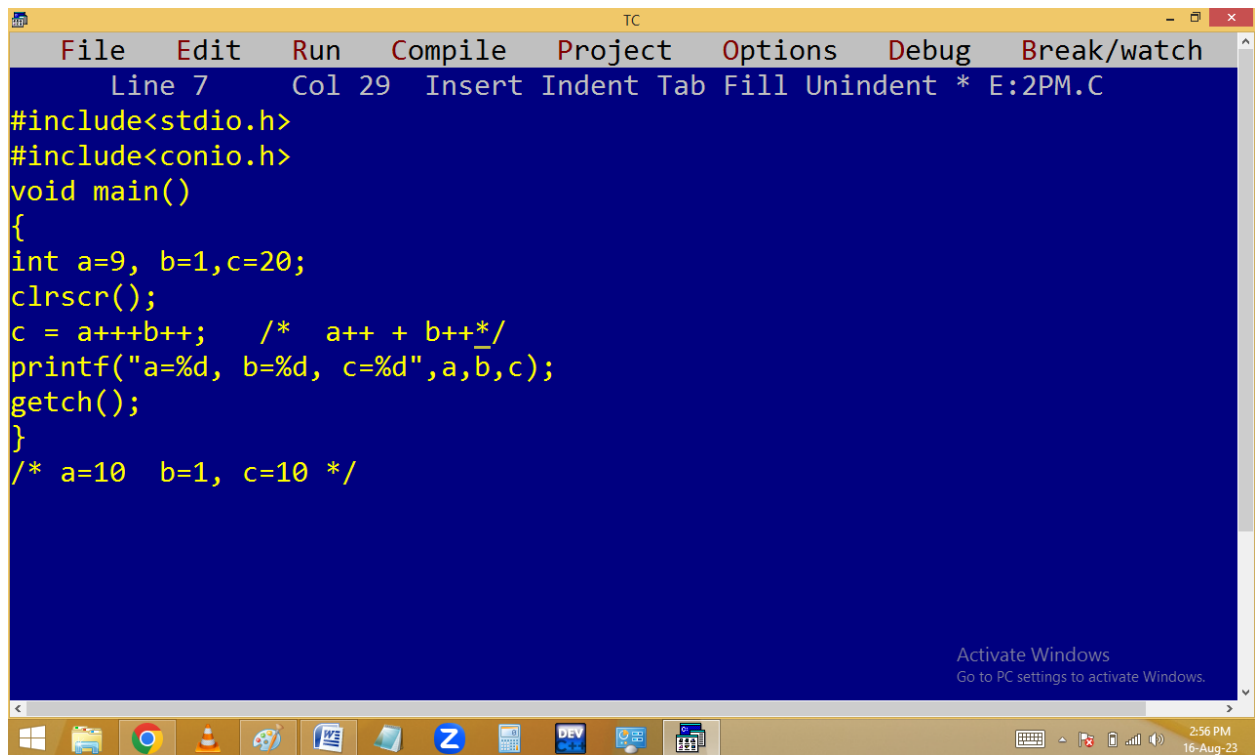
c = a+++b;

priority: +, =, a++

1. c = a+b ==> 9+1

2. c = 10

3. a++ ==> a=10



TC

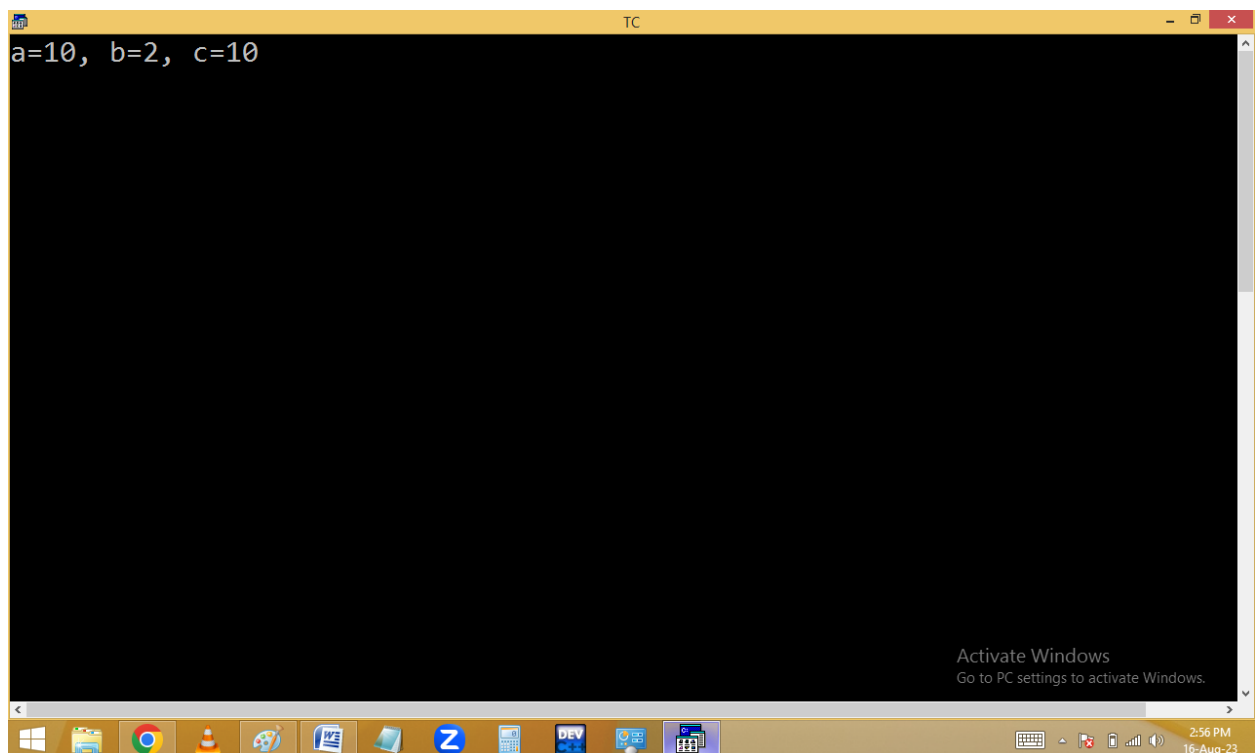
File Edit Run Compile Project Options Debug Break/watch

Line 7 Col 29 Insert Indent Tab Fill Unindent * E:2PM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=9, b=1,c=20;
clrscr();
c = a+++b++; /* a++ + b++*/
printf("a=%d, b=%d, c=%d",a,b,c);
getch();
}
/* a=10 b=1, c=10 */
```

Activate Windows
Go to PC settings to activate Windows.

2:56 PM
16-Aug-23



TC

```
a=10, b=2, c=10
```

Activate Windows
Go to PC settings to activate Windows.

2:56 PM
16-Aug-23

a=9 b=1 c=20

c = a+++b++;

priority: +, -, a++, b++

1. c = a + b ==> 9+1

2. c = 10

3. a++ ==> a=10

4. b++ ==> b=2

c = a++ = b++;

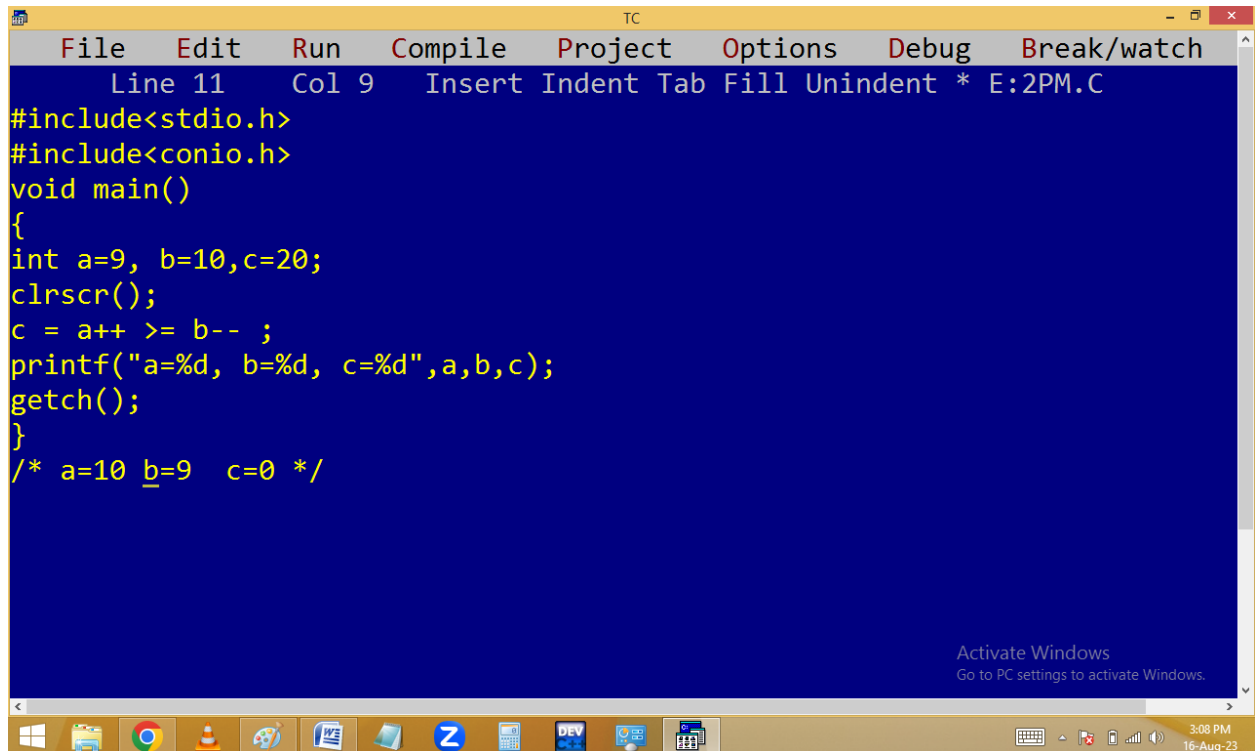
c = a = a + 1 = b = b + 1

c = a = a + 1 = b = 2

c = a = 10 = b = 2



const



```
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 9 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=9, b=10,c=20;
clrscr();
c = a++ >= b-- ;
printf("a=%d, b=%d, c=%d",a,b,c);
getch();
}
/* a=10 b=9 c=0 */
```

a=9 b=10 c=20

c = a++ >= b--;

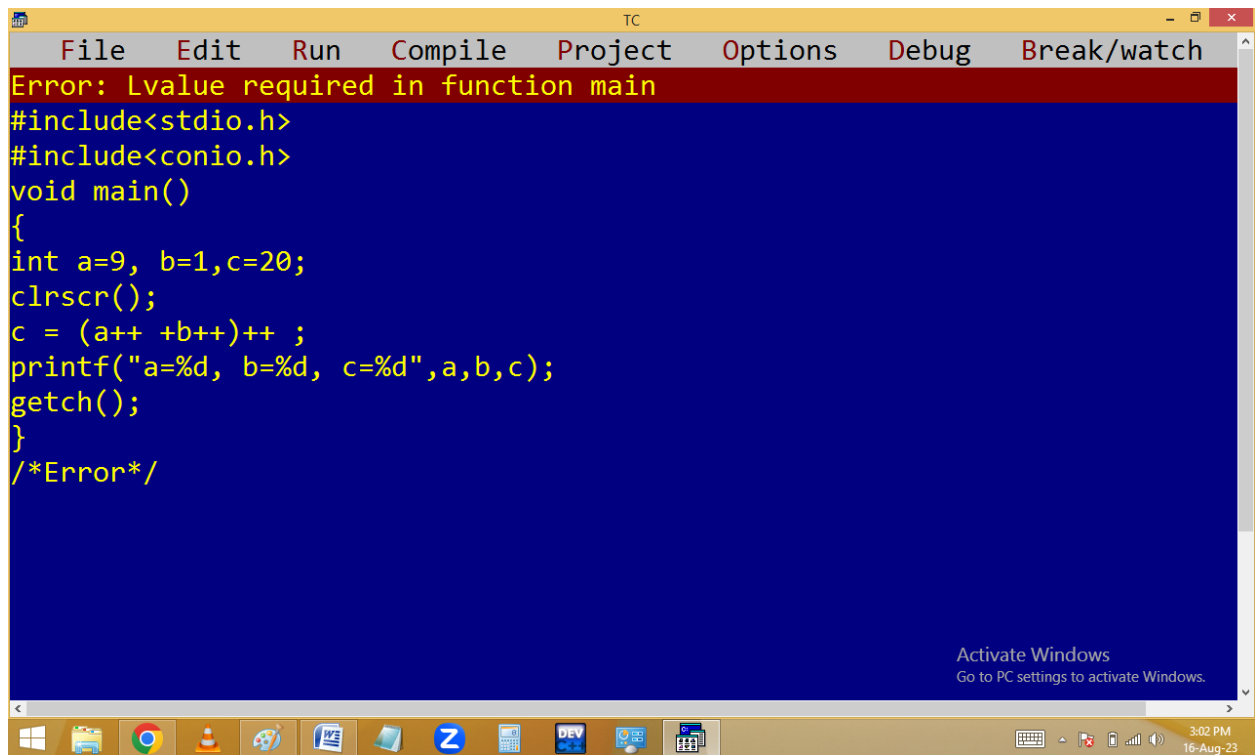
priority: >=, =, a++, b--

1. c = a >= b ==> 9 >= 10 ==> false ==> 0

2. c = 0

3. a++ ==> a=10

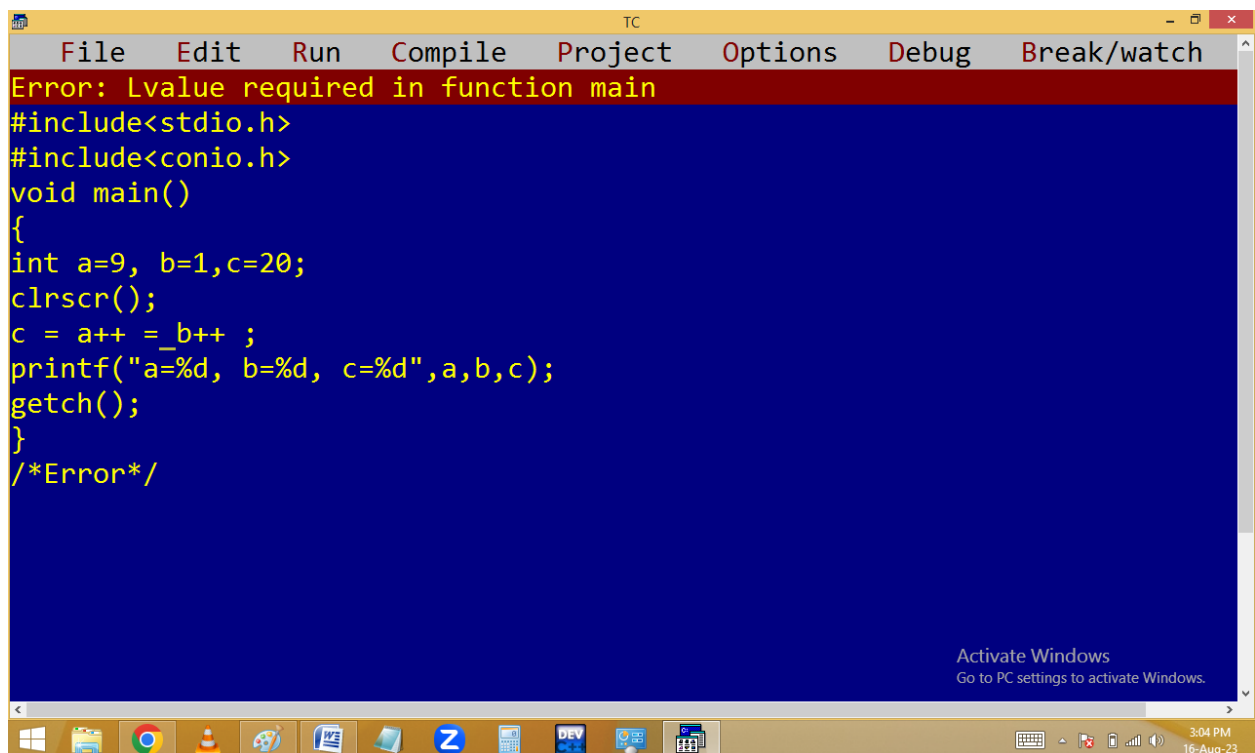
4. b-- ==> b=9



The screenshot shows the Turbo C++ (TC) IDE interface. The menu bar includes File, Edit, Run, Compile, Project, Options, Debug, and Break/watch. A red error banner at the top reads "Error: Lvalue required in function main". The code in the editor is as follows:

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=9, b=1,c=20;
clrscr();
c = (a++ +b++)++ ;
printf("a=%d, b=%d, c=%d",a,b,c);
getch();
}
/*Error*/
```

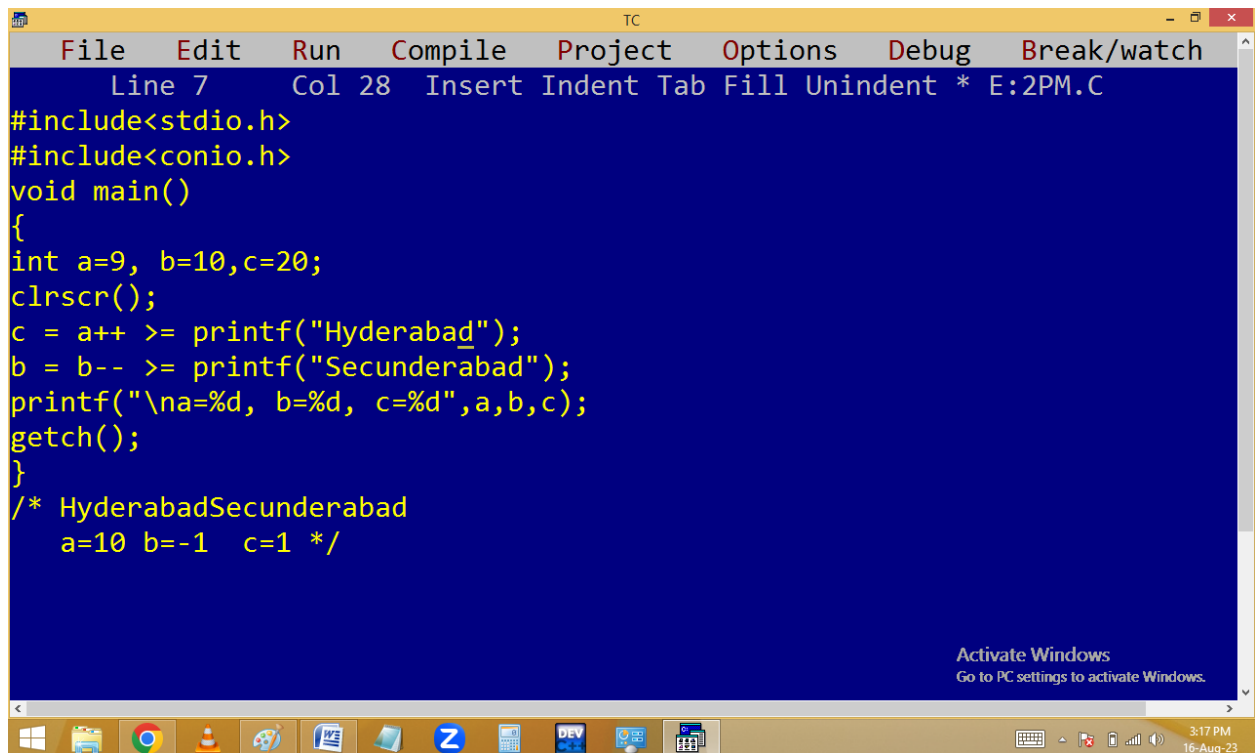
The Windows taskbar at the bottom shows the time as 3:02 PM on 16-Aug-23. An "Activate Windows" watermark is visible in the bottom right corner of the IDE window.



The screenshot shows the Turbo C++ (TC) IDE interface. The menu bar includes File, Edit, Run, Compile, Project, Options, Debug, and Break/watch. A red error banner at the top reads "Error: Lvalue required in function main". The code in the editor is as follows:

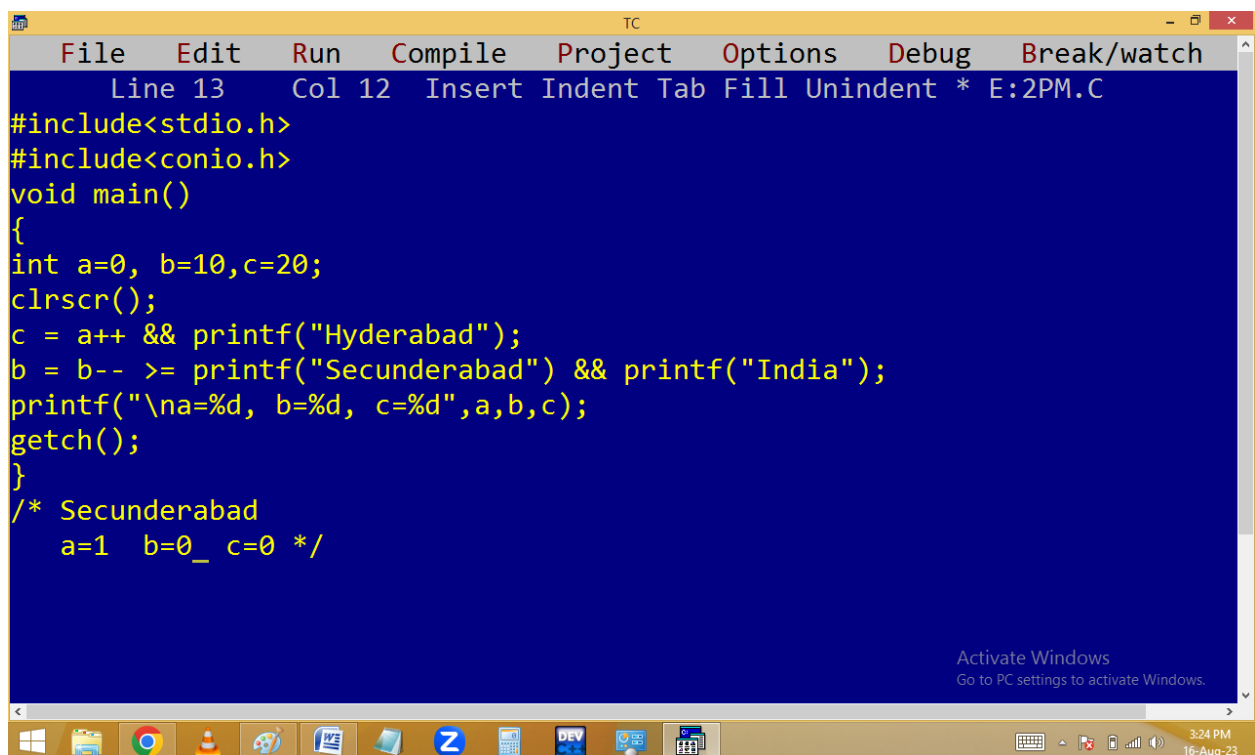
```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=9, b=1,c=20;
clrscr();
c = a++ =_b++ ;
printf("a=%d, b=%d, c=%d",a,b,c);
getch();
}
/*Error*/
```

The Windows taskbar at the bottom shows the time as 3:04 PM on 16-Aug-23. An "Activate Windows" watermark is visible in the bottom right corner of the IDE window.



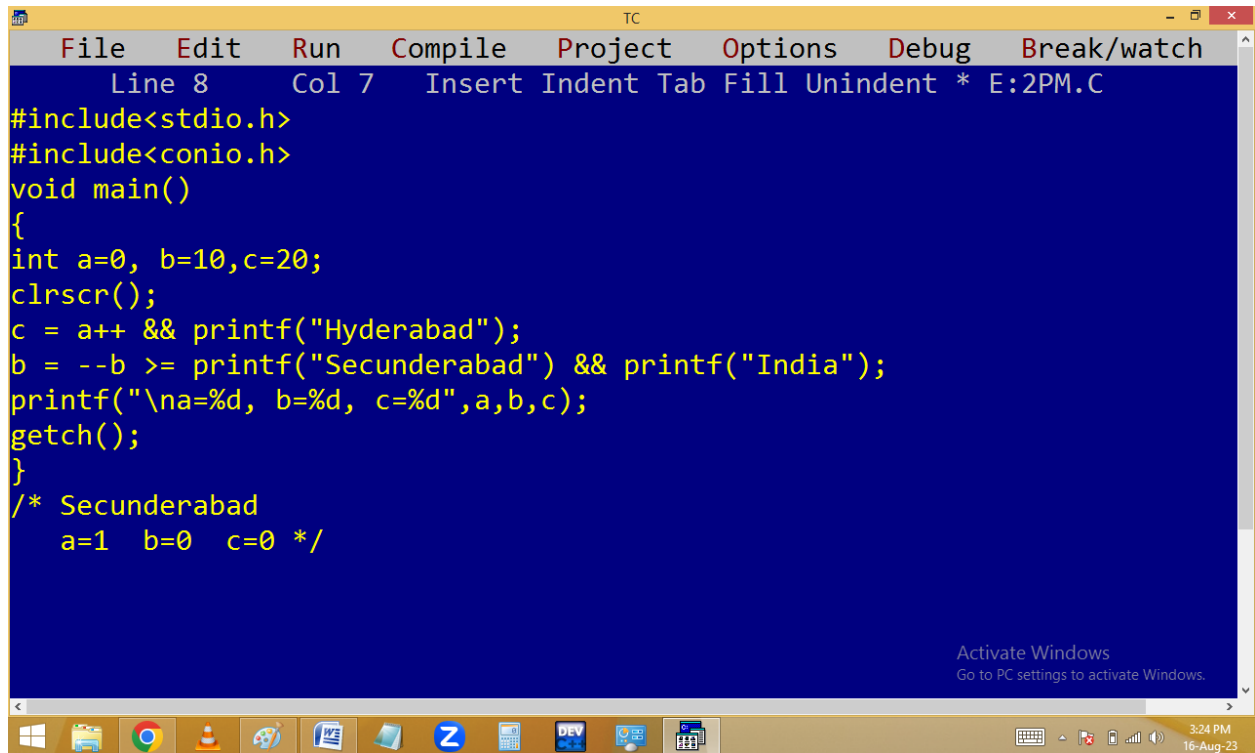
```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 7 Col 28 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=9, b=10,c=20;
clrscr();
c = a++ >= printf("Hyderabad");
b = b-- >= printf("Secunderabad");
printf("\na=%d, b=%d, c=%d",a,b,c);
getch();
}
/* HyderabadSecunderabad
a=10 b=-1 c=1 */

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



```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 12 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0, b=10,c=20;
clrscr();
c = a++ && printf("Hyderabad");
b = b-- >= printf("Secunderabad") && printf("India");
printf("\na=%d, b=%d, c=%d",a,b,c);
getch();
}
/* Secunderabad
a=1 b=0_ c=0 */

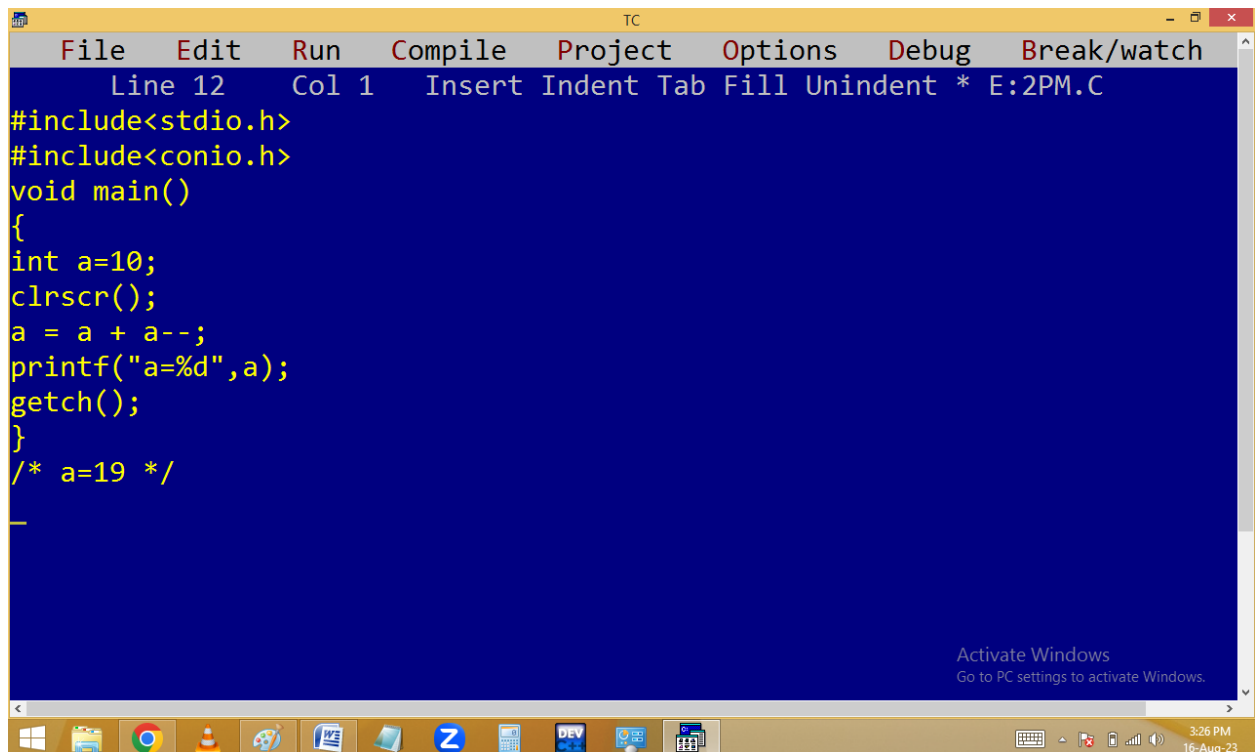
Activate Windows
Go to PC settings to activate Windows.
```



The screenshot shows the Turbo C++ IDE with a menu bar (File, Edit, Run, Compile, Project, Options, Debug, Break/watch) and a status bar (Line 8, Col 7, Insert, Indent, Tab, Fill, Unindent, * E:2PM.C). The code in the editor is as follows:

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0, b=10,c=20;
clrscr();
c = a++ && printf("Hyderabad");
b = --b >= printf("Secunderabad") && printf("India");
printf("\na=%d, b=%d, c=%d",a,b,c);
getch();
}
/* Secunderabad
   a=1  b=0  c=0 */
```

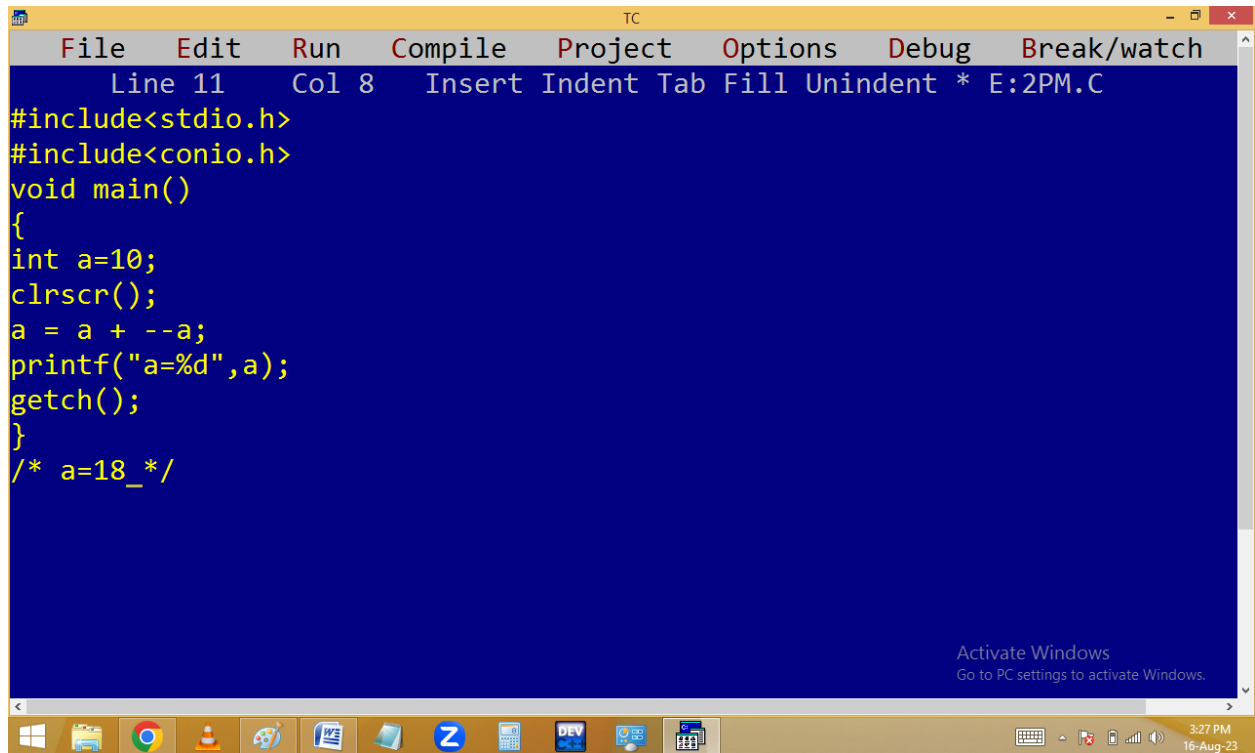
The Windows taskbar at the bottom shows the time as 3:24 PM on 16-Aug-23.



The screenshot shows the Turbo C++ IDE with a menu bar (File, Edit, Run, Compile, Project, Options, Debug, Break/watch) and a status bar (Line 12, Col 1, Insert, Indent, Tab, Fill, Unindent, * E:2PM.C). The code in the editor is as follows:

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=10;
clrscr();
a = a + a--;
printf("a=%d",a);
getch();
}
/* a=19 */
```

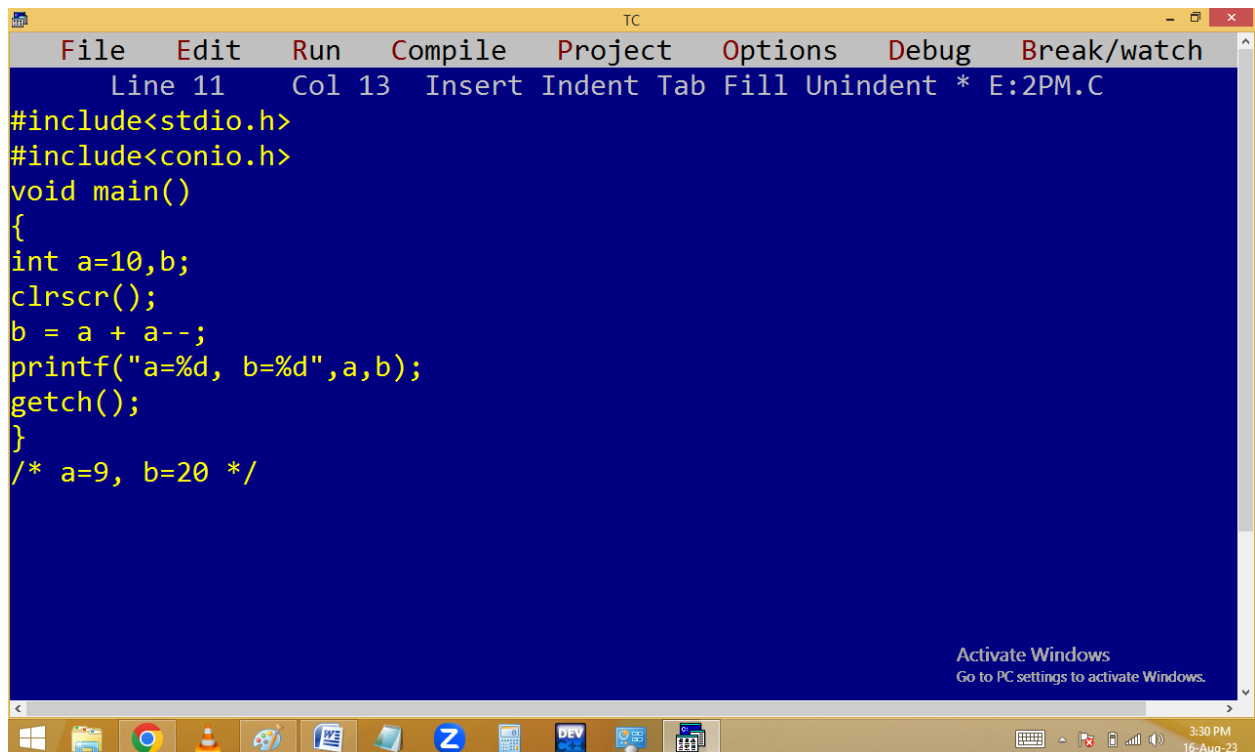
The Windows taskbar at the bottom shows the time as 3:26 PM on 16-Aug-23.



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 code editor displays a C program with the following code:

```
Line 11 Col 8 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=10;
clrscr();
a = a + --a;
printf("a=%d",a);
getch();
}
/* a=18_*/
```

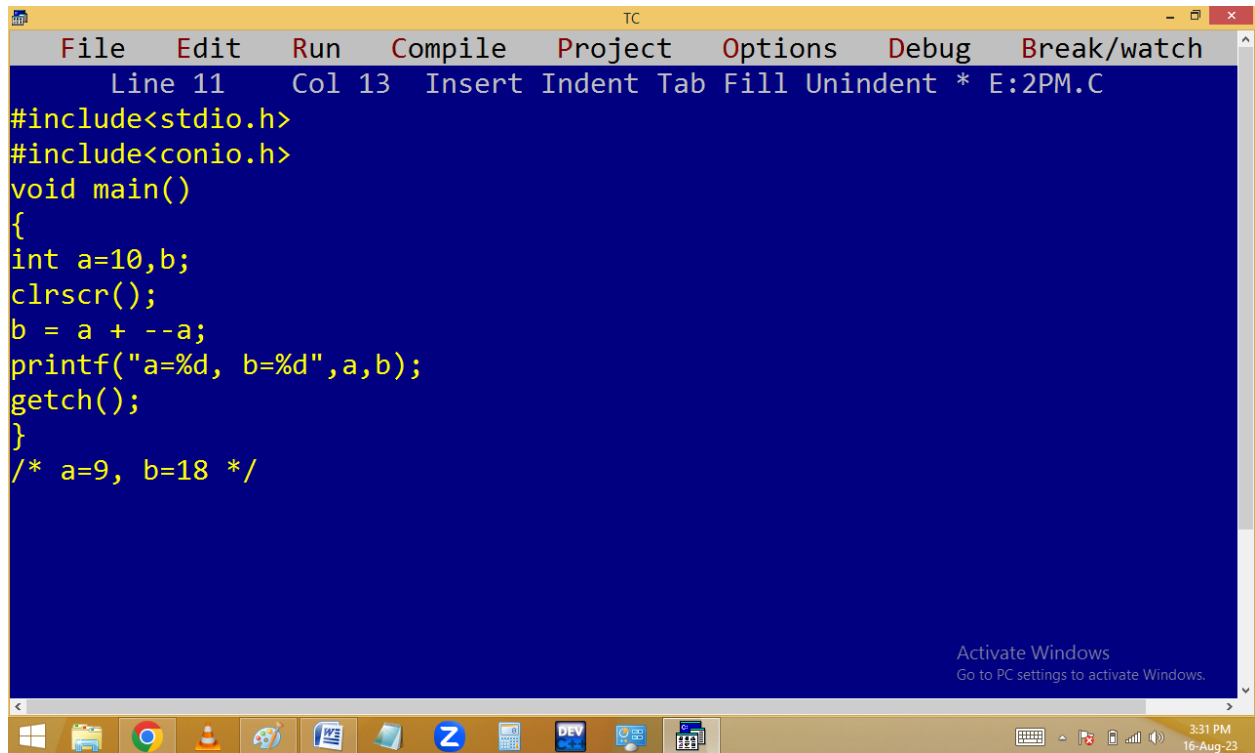
The status bar at the bottom right indicates "Activate Windows" and "Go to PC settings to activate Windows." The taskbar at the bottom shows various application icons and the system clock displaying 3:27 PM on 16-Aug-23.



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 code editor displays a C program with the following code:

```
Line 11 Col 13 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=10,b;
clrscr();
b = a + a--;
printf("a=%d, b=%d",a,b);
getch();
}
/* a=9, b=20 */
```

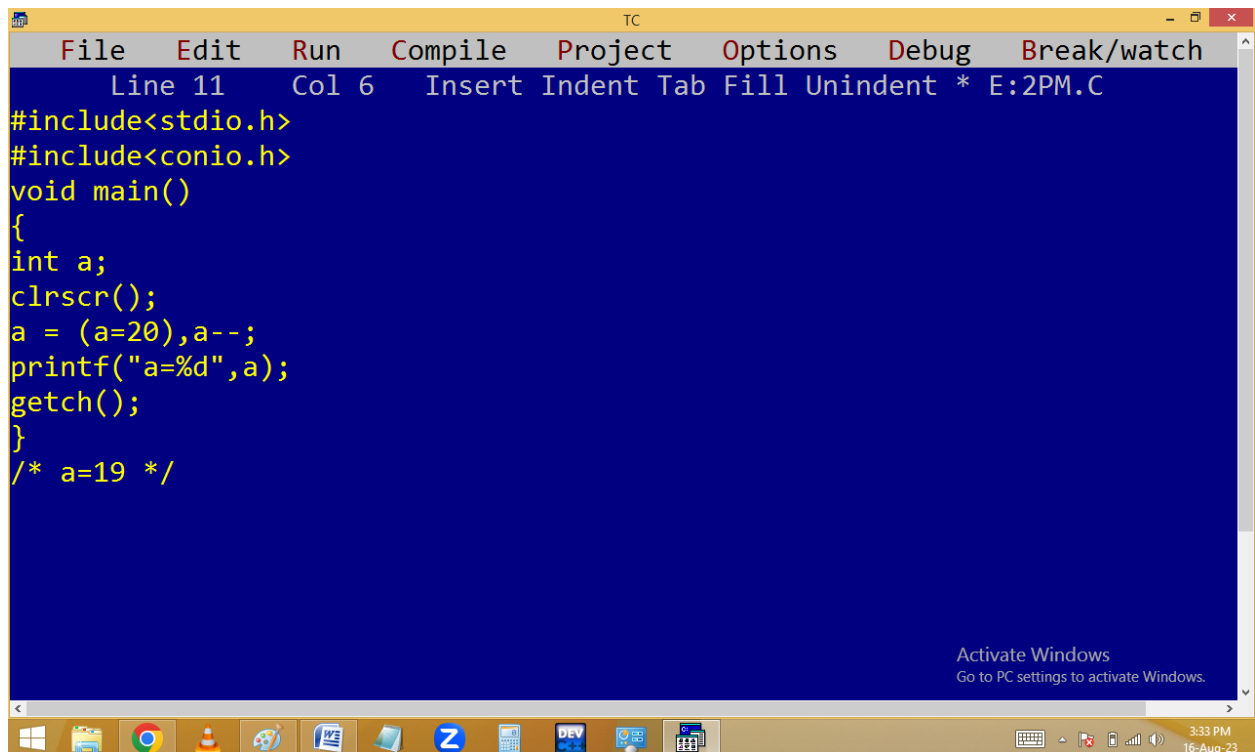
The status bar at the bottom right indicates "Activate Windows" and "Go to PC settings to activate Windows." The taskbar at the bottom shows various application icons and the system clock displaying 3:30 PM on 16-Aug-23.



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 code editor displays a C program with the following code:

```
Line 11 Col 13 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=10,b;
clrscr();
b = a + --a;
printf("a=%d, b=%d",a,b);
getch();
}
/* a=9, b=18 */
```

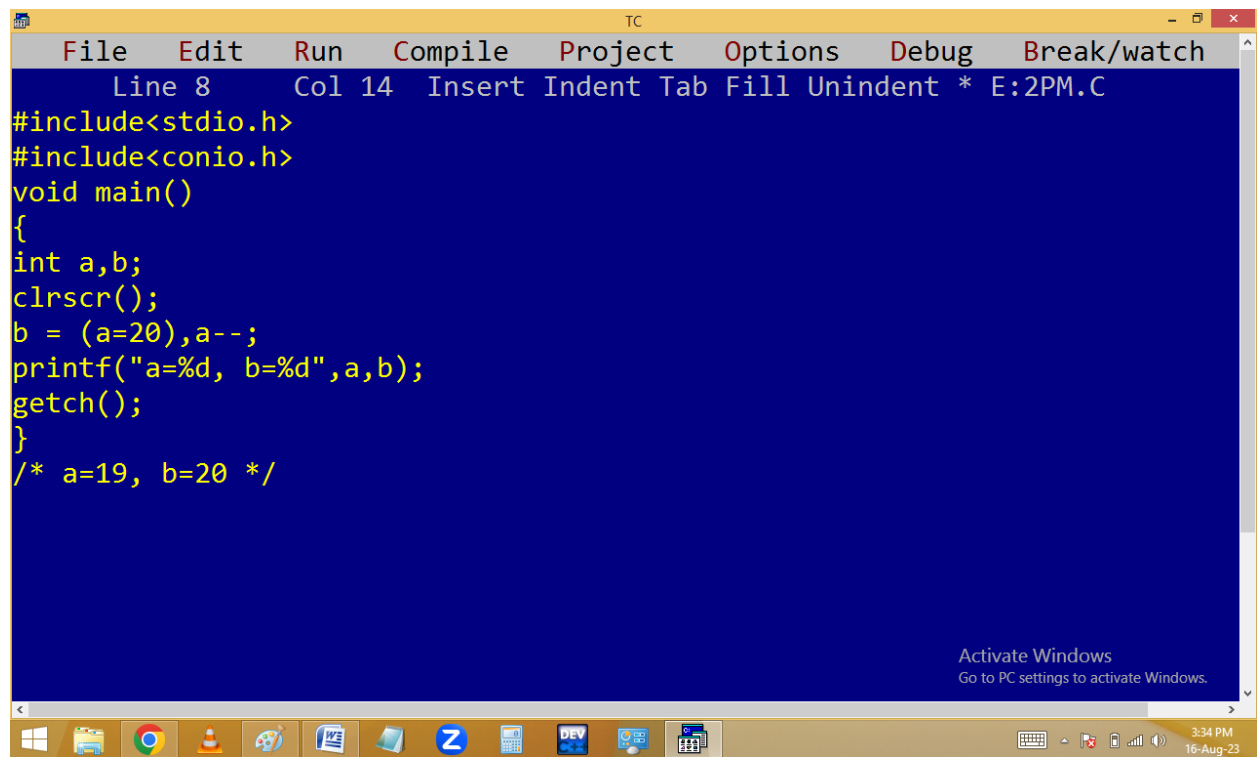
The status bar at the bottom indicates the time as 3:31 PM on 16-Aug-23. An "Activate Windows" watermark is visible in the bottom right corner.



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 code editor displays a C program with the following code:

```
Line 11 Col 6 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a;
clrscr();
a = (a=20),a--;
printf("a=%d",a);
getch();
}
/* a=19 */
```

The status bar at the bottom indicates the time as 3:33 PM on 16-Aug-23. An "Activate Windows" watermark is visible in the bottom right corner.



```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 8 Col 14 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b;
clrscr();
b = (a=20),a--;
printf("a=%d, b=%d",a,b);
getch();
}
/* a=19, b=20 */

Activate Windows
Go to PC settings to activate Windows.

3:34 PM
16-Aug-23
```

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 14 Col 12 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=100;
clrscr();
a++/2;
printf("a=%d\n",a);
++a/2;
printf("a=%d",a);
getch();
}
/* a=101
a=102 */_

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

a=100

a++/2;

priority: /, a++

1. a/2==>100/2=50 [50 not stored in a because of = not used i.e. a=100]

2. a++ ==> a=101

++a/2

priority: ++a, /

1. ++a ==> a=102

2. a/2 ==> 102/2=51 [51 not stored in a because of = not used i.e. a=102]

a=102

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 14 Col 8 Insert Indent Tab Fill Unindent * E:2PM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=100;
clrscr();
a=a++/2;
printf("a=%d\n",a);
a=++a/2;
printf("a=%d",a);
getch();
}
/* a=51
a=26 */
```

a=100

a=a++/2 priority: a/2, =, a++

1. **a=a/2==>100/2=50**

2. **a=50**

3. **++ ==> a=51** ✓

a=++a/2; priority: ++a, a/2, =

1. **++a==> a=52**

2. **a=a/2==> 52/2=26**

3. **a=26** ✓