

The image shows two screenshots of the Turbo C++ (TC) IDE. The top screenshot displays a source code file with a compilation error. The code is as follows:

```
File Edit Run Compile Project Options Debug Break/watch
Error: Lvalue required in function main
#include<stdio.h>
#include<conio.h>
void main()
{
clrscr();
printf("%d\n",3++);
printf("%d\n",++3);
getch();
}

/* 2 Errors */
```

The bottom screenshot shows another source code file, `E:9AM.C`, with the following code:

```
File Edit Run Compile Project Options Debug Break/watch
Line 13 Col 14 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=1, b=7;
clrscr();
a=a++ + ++b;
b=++a + b++;
printf("a=%d, b=%d\n",a,b);
getch();
}

/* a=11, b=20_*/
```

Both screenshots show the standard Windows taskbar at the bottom with icons for various applications and the system clock.

a=1    b=7

a = a++ + ++b;

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

1. ++b ==> b=8

2. a = a + b ==> 1 + 8

3. a = 9

4. a++ ==> a=10

b= ++a + b++;

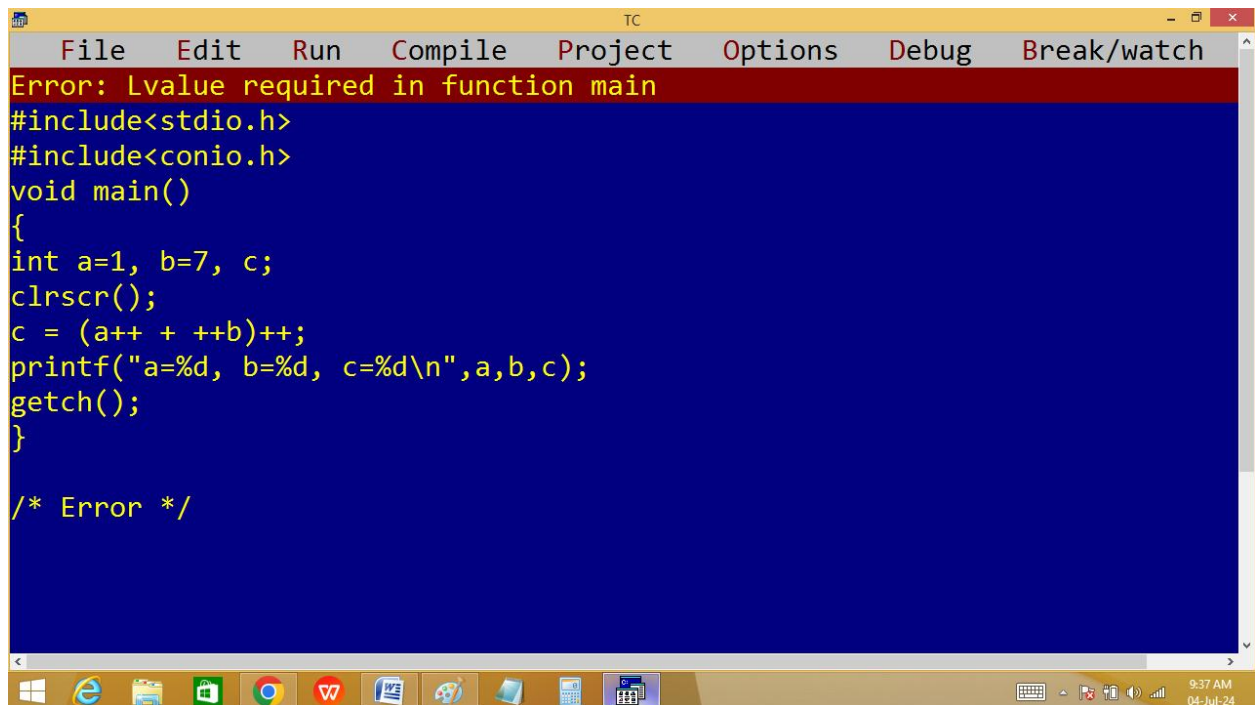
priority: ++a, +, = b++

1. ++a ==> a=11 ✓

2. b = a + b ==> 11 + 8

3. b = 19

4. b++ ==> b=20 ✓



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

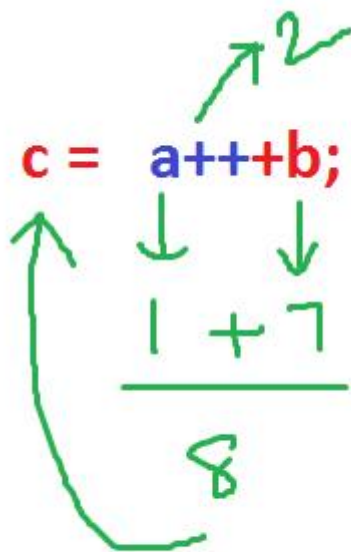
```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=1, b=7, c;
clrscr();
c = (a++ + ++b)++;
printf("a=%d, b=%d, c=%d\n",a,b,c);
getch();
}

/* Error */
```

The Windows taskbar at the bottom shows the time as 9:37 AM on 04-Jul-24.

```
TC
File Edit Run Compile Project Options Debug Break/watch
Line 12 Col 17 Insert Indent Tab Fill Unindent * E:9AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=1, b=7, c;
clrscr();
c = a+++b;
printf("a=%d, b=%d, c=%d\n",a,b,c);
getch();
}

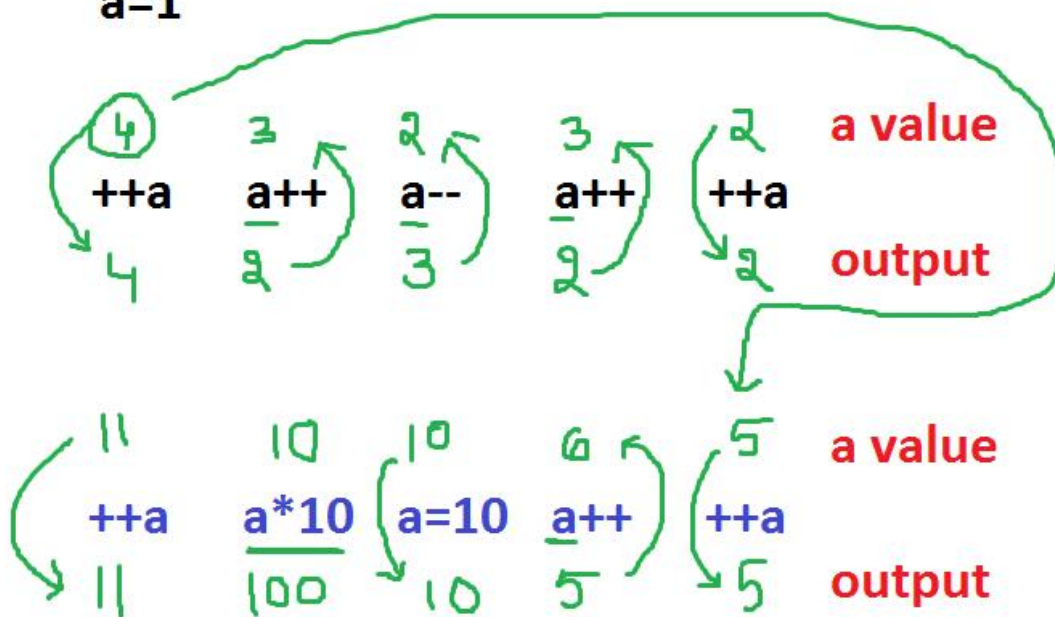
/* a=2, b=7, c=8_*/
```



```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=1;
clrscr();
printf("%d,%d,%d,%d,%d\n",++a,a++,a--,a++,++a);
printf("%d,%d,%d,%d,%d\n",++a,a*10,a=10,a++,++a);
getch();
}
/* In printf execution order is right to left. but
printing is left to right */
```

```
4,2,3,2,2
11,100,10,5,5
```

a=1



```
TC
#include<stdio.h>
#include<conio.h>
void main()
{
int a=11;
clrscr();
printf("%d\n",++a, a=25);
printf("%d, %d\n", ++a,a++,a=a/2);
printf("%d, %d, %d\n", ++a,a=printf("Hello"),a*4);
printf("%d, %d, %d\n", ++a,printf("Bye"),a/2);
getch();
}

26
15, 13
Hello6, 5, 60
Bye7, 3, 3
_
```

```
TC
Line 12 Col 20 Insert Indent Tab Fill Uninder
#include<stdio.h>
#include<conio.h>
void main()
{
int a=4,b=5,c=20;
clrscr();
c = ++a == b++;
printf("a=%d, b=%d, c=%d\n",a,b,c);
getch();
}
/* a=5, b=6, c=1 */
```

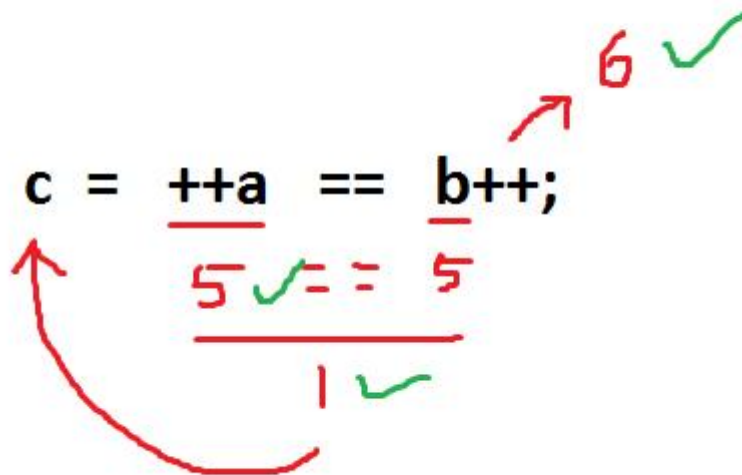
**a=4    b=5    c=20**

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

**5 ✓ == 5**

**1 ✓**

**6 ✓**









```
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b,c,d;
clrscr();
a=b=c=2;
d = a++ >= b++ && ++b != c++;
printf("a=%d, b=%d, c=%d, d=%d\n",a,b,c,d);
getch();
}
/* a=3, b=4, c=3, d=1 */
```

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a,b,c,d;
clrscr();
a=b=c=2;
d = a++ >= b++ || ++b != c++;
printf("a=%d, b=%d, c=%d, d=%d\n",a,b,c,d);
getch();
}
/* a=3, b=3, c=2, d=1 */
```

~~a=2~~ ~~b=2~~ c=2 ✓  
~~3~~ ~~3~~  
 ↗ ↗  
 d = a++ >= b++ || ++b != c++;  
     2      2  
 ↖  
 | ✓

**Not checked**

```

#include<stdio.h>
#include<conio.h>
void main()
{
int a,b,c,d;
clrscr();
a=b=c=2;
d = a++ != b++ && ++b != c++;
printf("a=%d, b=%d, c=%d, d=%d\n",a,b,c,d);
getch();
}
/* a=3, b=3, c=2, d=0 */
  
```

~~a=2~~<sub>3</sub>      ~~b=2~~<sub>3</sub>      c=2 ✓  
                  ↗ 3 ✓      ↗ 3  
 d = a++ != b++ && ++b != c++;  
          2      != 2      &&  
    **Not checked**  
    0 ✓

```

Line 12   Col 22   Insert Indent Tab Fill Uninder
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0,b=1,c=2,d;
clrscr();
d = a++ || ++b || --c;
printf("a=%d, b=%d, c=%d, d=%d\n",a,b,c,d);
getch();
}
/* a=1, b=2, c=2, d=1 */
  
```

**a=0    b=1    c=2 ✓**

$d = \underline{a++} \quad || \quad \underline{++b} \quad || \quad \cancel{--c};$

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0,b=1,c=2,d;
clrscr();
d = a++ && ++b || --c;
printf("a=%d, b=%d, c=%d, d=%d\n",a,b,c,d);
getch();
}
/* a=1, b=1, c=1, d=1 */
```

a=0    b=1 ✓    c=2

d = a++ && ~~++b~~ || --c;

The image shows handwritten annotations in red ink for the expression `d = a++ && ++b || --c;`. Above the `a++` term, there is an arrow pointing to the `a` and a checkmark. Below the `a++` term, the value `0` is written and underlined. Above the `--c` term, there is an arrow pointing to the `c` and a checkmark. Below the `--c` term, the value `1` is written and underlined. A horizontal line is drawn below the entire expression, with an arrow pointing from the end of the line back to the `d` variable. Below this line, the value `1` is written and underlined.