

a=2

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

1. b = a + a + a

$$2 + 2 + 2 = 6$$

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

Online compiler or Dev C++:

a=2 ~~3~~ 4 5 ✓
b = a++ + a++ + a++;
1 + 3 + 4 = 9 ✓

a=2 ~~3~~ 4 5 ✓
b = ++a + ++a + ++a;
4 + 4 + 5 = 13 ✓

(no subject) - kishoreniithyd@gmail.com X

Naresh IT (@nareshitech) • Insta X

Online C Compiler X

You are screen sharing

EN

Stop share

programiz.com/c-programming/online-compiler/

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main.c

Run

Output

Clear

```
1 #include<stdio.h>
2
3 int main()
4 {
5     int a=2, b;
6     b = a++ + a++ + a++;
7     printf("a=%d, b=%d\n",a,b);
8     a=2;
9     b = ++a + ++a + ++a;
10    printf("a=%d, b=%d",a,b);
11 }
```

```
a=5, b=9
a=5, b=13

=== Code Execution Successful ===
```

Windows Taskbar

11:44 AM 28-Jul-25

```
File Edit Search Run Compile Debug Project Options Window
[ ] INCRDECR.CPP
#include<stdio.h>
#include<conio.h>
void main()
{
int x=3;
int y=2;
int z; // var declaration
clrscr();
z=x++ * (x+y) - y--; // initialization
printf("x=%d, y=%d, z=%d",x,y,z);
getch();
}

x=4, y=1, z=13_
```

$x=3$

$y=2$

$z = x++ * (x+y) - y--;$

The diagram illustrates the evaluation of the expression $z = x++ * (x+y) - y--;$ with initial values $x=3$ and $y=2$. Red arrows indicate the flow of data and updates. A green checkmark is placed next to each final value.

Initial values: $x=3$, $y=2$.

Expression: $z = x++ * (x+y) - y--;$

Handwritten calculation steps:

- Calculate $x+y$: $3+2=5$ (green checkmark).
- Calculate $x++$: x becomes 4 (green checkmark).
- Calculate $y--$: y becomes 1 (green checkmark).
- Calculate $3 * 5 = 15$.
- Calculate $15 - 2 = 13$ (green checkmark).

The final result is $z = 13$.

```
File Edit Search Run Compile Debug Project Options Window
[ ] INCRDECR.CPP
#include<stdio.h>
#include<conio.h>
void main()
{
int x=3;
int y=2;
clrscr();
int z=x++ * (x+y) - y--; // declration & initialization
printf("x=%d, y=%d, z=%d",x,y,z);
getch();
}

x=4, y=1, z=16
```

x=3

y=2

int z = x++ * (x+y) - y--;

Handwritten diagram showing the evaluation of the expression `int z = x++ * (x+y) - y--;` with arrows indicating the flow of values and green checkmarks for correctness.

The diagram shows the expression `int z = x++ * (x+y) - y--;` with arrows indicating the flow of values:

- An arrow points from `x` to `3`.
- An arrow points from `x++` to `4` (with a green checkmark above it).
- An arrow points from `(x+y)` to `(4+2)`.
- An arrow points from `y--` to `2` (with a green checkmark above it).

The calculation is shown as:

$$\begin{array}{r} 3 \times 6 \\ \hline 18 \end{array} - 2 = 16 \quad \checkmark$$

A red arrow points from the final result `16` back to the variable `z` in the original expression.

You are screen sharing

Stop share

File Edit Run Compile Project Options Debug Break/watch

Line 8 Col 25 Insert Indent Tab Fill Unindent * E:11AM.C

```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=0, b=5, c;
clrscr();
c =  a++ && --b;
printf("a=%d, b=%d, c=%d_",a,b,c);
getch();
}
```

You are screen sharing

Stop share

a=1, b=5, c=0_

You are screen sharing

Stop share

a=0

b=5 ✓

c = a++ && --b;
↑ ↓ ✓ X

```
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=0, b=5, c;
clrscr();
c = a++ && b=10;
printf("a=%d, b=%d, c=%d",a,b,c);
getch();
}
```

a=0 b=5

c = a++ && b=10;

c = a = a + 1 && b=10;

1 && 5
1 = 10

Compound assignment / short hand operators?

Here we are using one assignment operator with the combination of other operators as follows.

Eg: +=, -=, *=, /=, ~=, <<=, >>=,

Example:

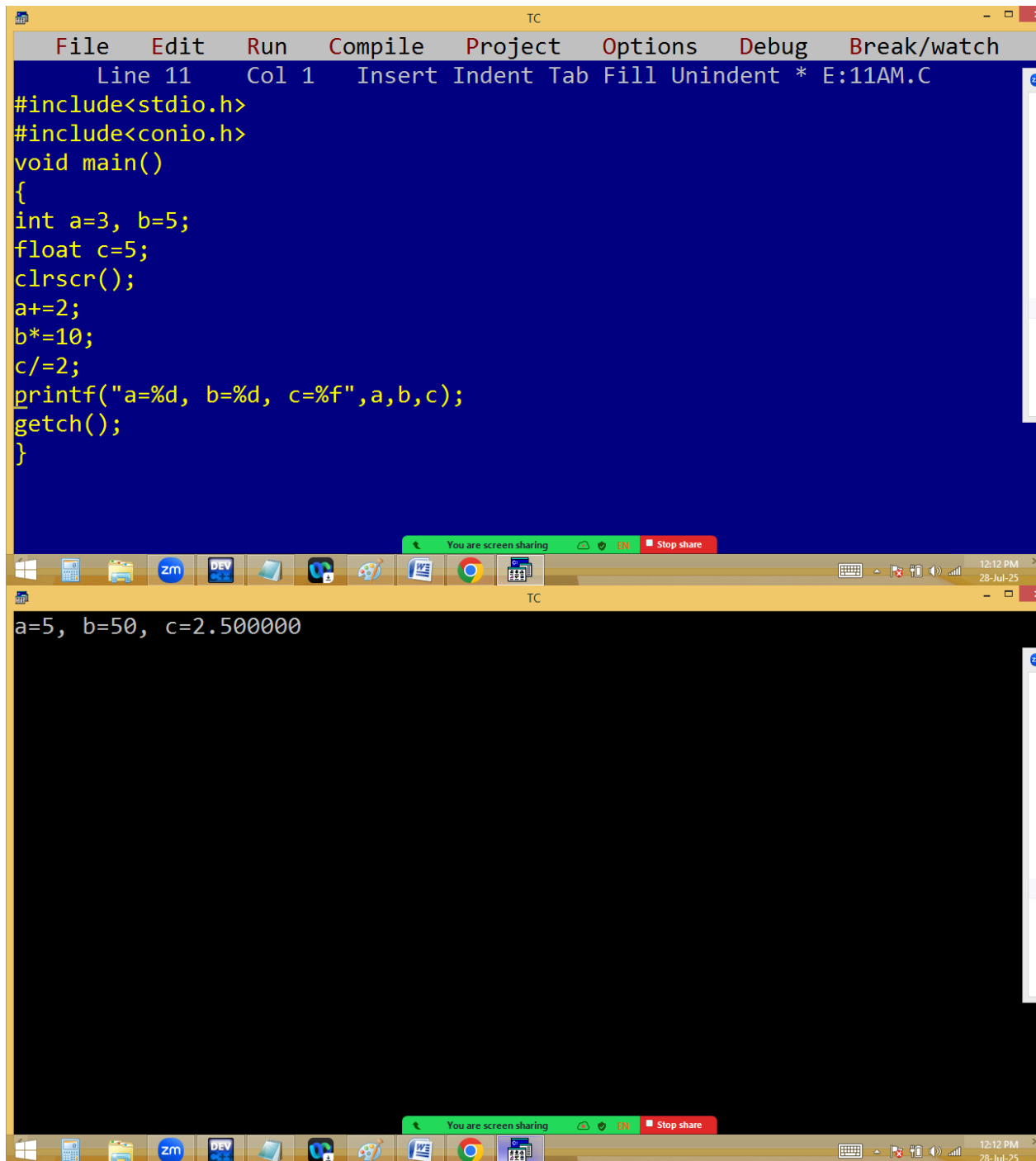
int a=3, b=10;

float c=5;

a+=2 ➡ a=a+2 ➡ a=3+2 ➡ a=5

$b*=10 \rightarrow b=b*10 \rightarrow b = 5*10 \rightarrow b=50$

$c/=2 \rightarrow c=c/2 \rightarrow c = 5/2 \rightarrow c=2.500000$



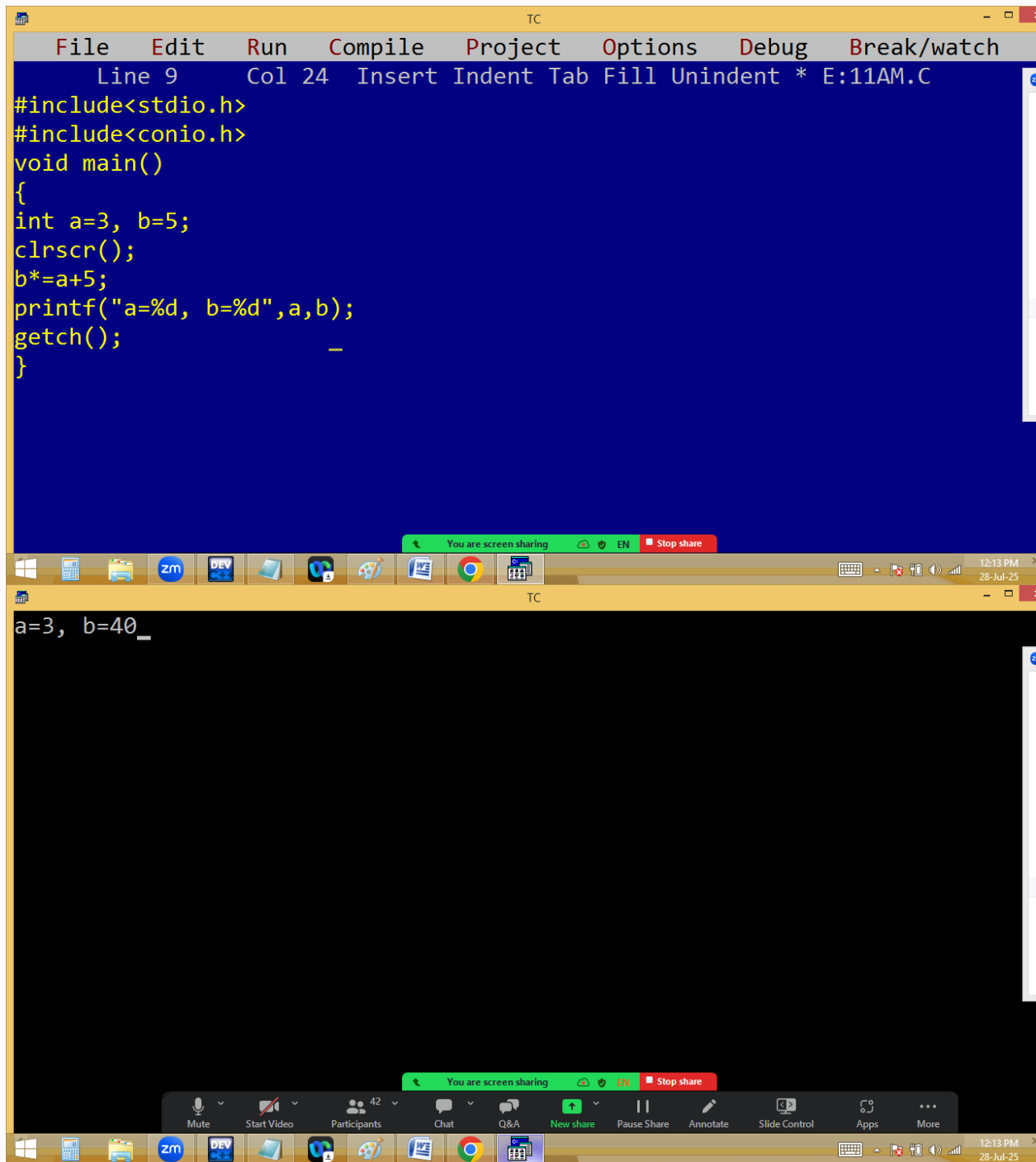
The image shows a screenshot of a Turbo C++ (TC) IDE. The top window displays a C program with the following code:


```
File Edit Run Compile Project Options Debug Break/watch
Line 11 Col 1 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=3, b=5;
float c=5;
clrscr();
a+=2;
b*=10;
c/=2;
printf("a=%d, b=%d, c=%f",a,b,c);
getch();
}
```

Below the code editor, a status bar indicates "You are screen sharing" with a "Stop share" button. The bottom window shows the output of the program:

```
a=5, b=50, c=2.500000
```


The Windows taskbar at the bottom shows the time as 12:12 PM on 28-Jul-25. Various application icons are visible on the taskbar, including Zoho Mail (zm), DEV, and Google Chrome.




a=3, b=5;

b*=a+5;

1. a+5 ==> 3+5=8

2. b*=8 ==> b=b*8 ==> 5*8=40 

The image shows a screenshot of a Turbo C++ (TC) IDE. The top window displays a C program with the following code:

```
Line 8 Col 10 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a=10.3, b=5.5, c=2.2;
clrscr();
a+=b*=c/=1.3;
printf("a=%d, b=%d, c=%d",a,b,c);
getch();
}
```

Below the code editor, a status bar indicates "You are screen sharing" with a green bar and a "Stop share" button. The bottom window shows the output of the program:

```
a=15, b=5, c=1_
```

The bottom window also has a status bar with the same "You are screen sharing" message and "Stop share" button. The Windows taskbar at the bottom shows various icons, including the Start button, taskbar icons, and system tray icons. The system clock shows 12:17 PM on 28-Jul-25.

int a=10 b=5 c=2;

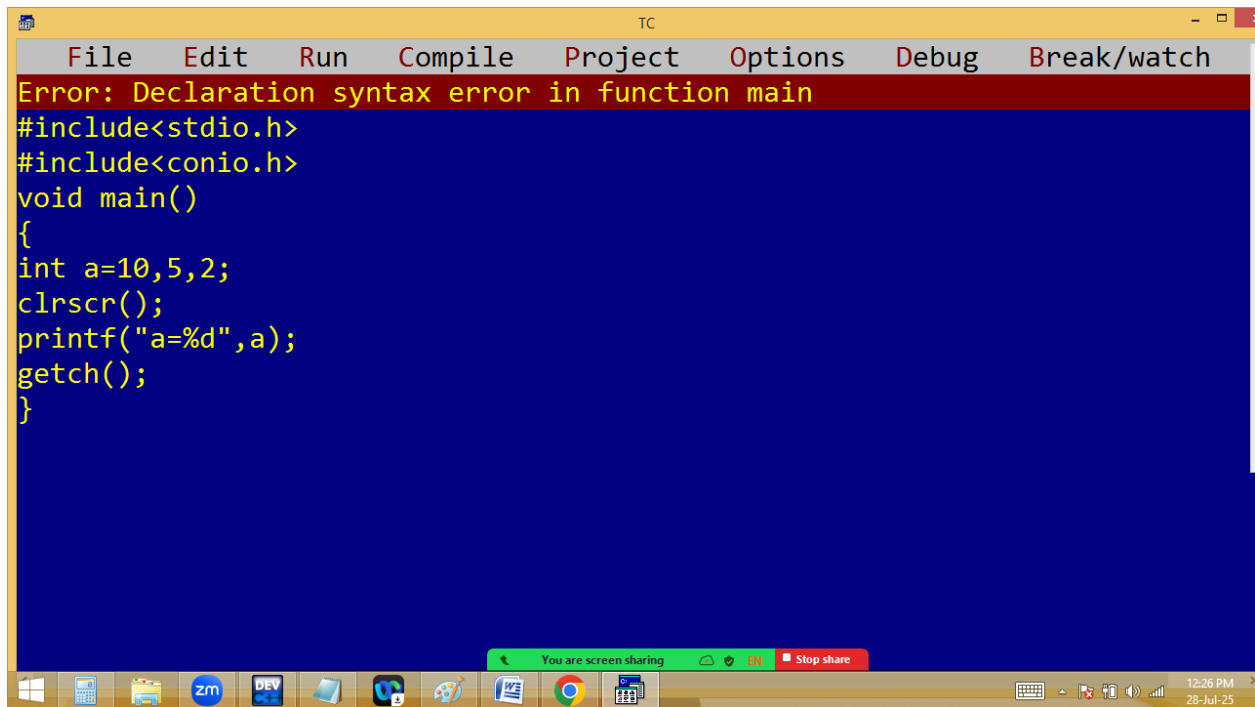
a+=b*=c/=1.3;

$c/=1.3 \Rightarrow c=c/1.3 \Rightarrow 2/1.3=1.53$ ✓

$b*=c \Rightarrow b=b*c \Rightarrow 5*1=5$ ✓

$a+=b \Rightarrow a=a+b \Rightarrow 10+5 \Rightarrow 15$ ✓

() and , separators:



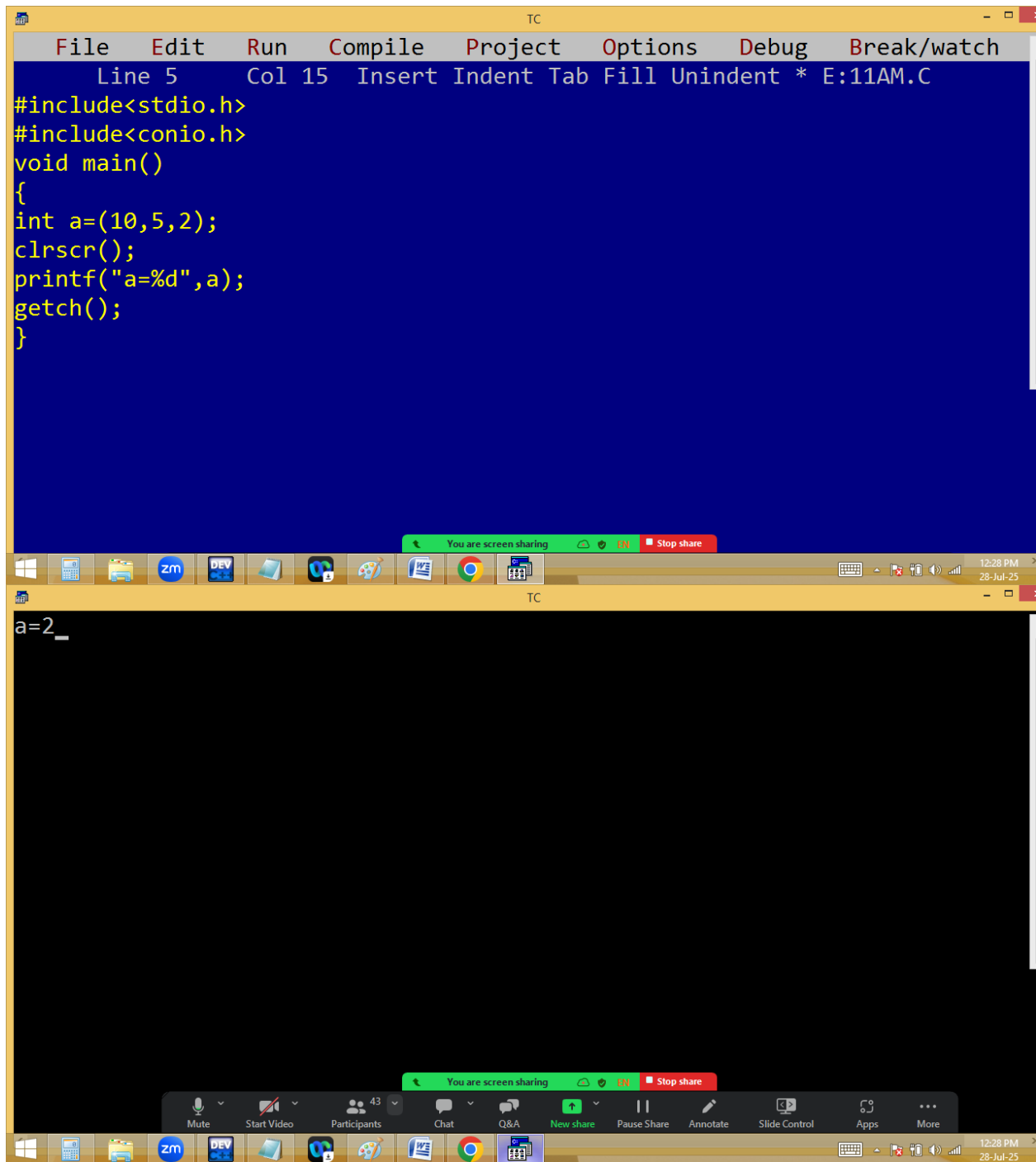
The screenshot shows a Turbo C++ (TC) IDE window. The menu bar includes File, Edit, Run, Compile, Project, Options, Debug, and Break/watch. A red error message banner at the top reads "Error: Declaration syntax error in function main". The code in the editor is as follows:


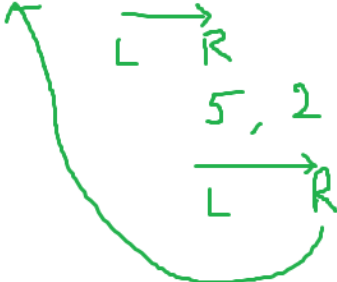
```
#include<stdio.h>
#include<conio.h>
void main()
{
int a=10,5,2;
clrscr();
printf("a=%d",a);
getch();
}
```


The error is caused by the declaration `int a=10,5,2;`, where commas are used as separators between values instead of as part of a list of variables. The Windows taskbar at the bottom shows various icons, including a "You are screen sharing" notification.

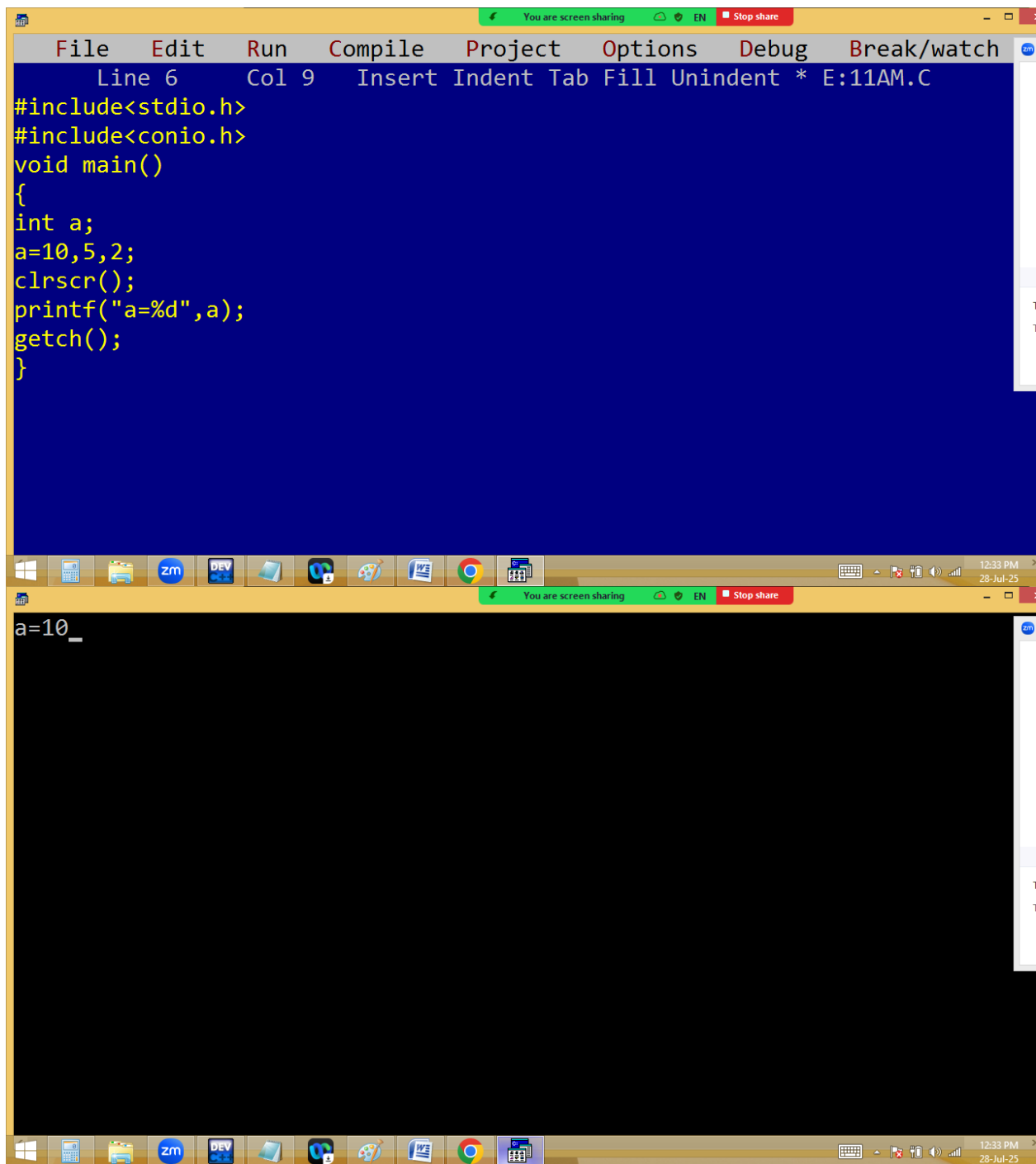
Variable declaration:

Datatype variable = value, variable = value,...;




`int a = (10, 5, 2);`



`a=10;`
`a=5;`
`a=2;`
`printf(a);`



The image shows a Windows desktop environment with two overlapping windows. The top window is a code editor with a yellow title bar and a green status bar at the bottom. The status bar contains the text "You are screen sharing" and "EN". The code editor has a menu bar with "File", "Edit", "Run", "Compile", "Project", "Options", "Debug", and "Break/watch". The code is as follows:

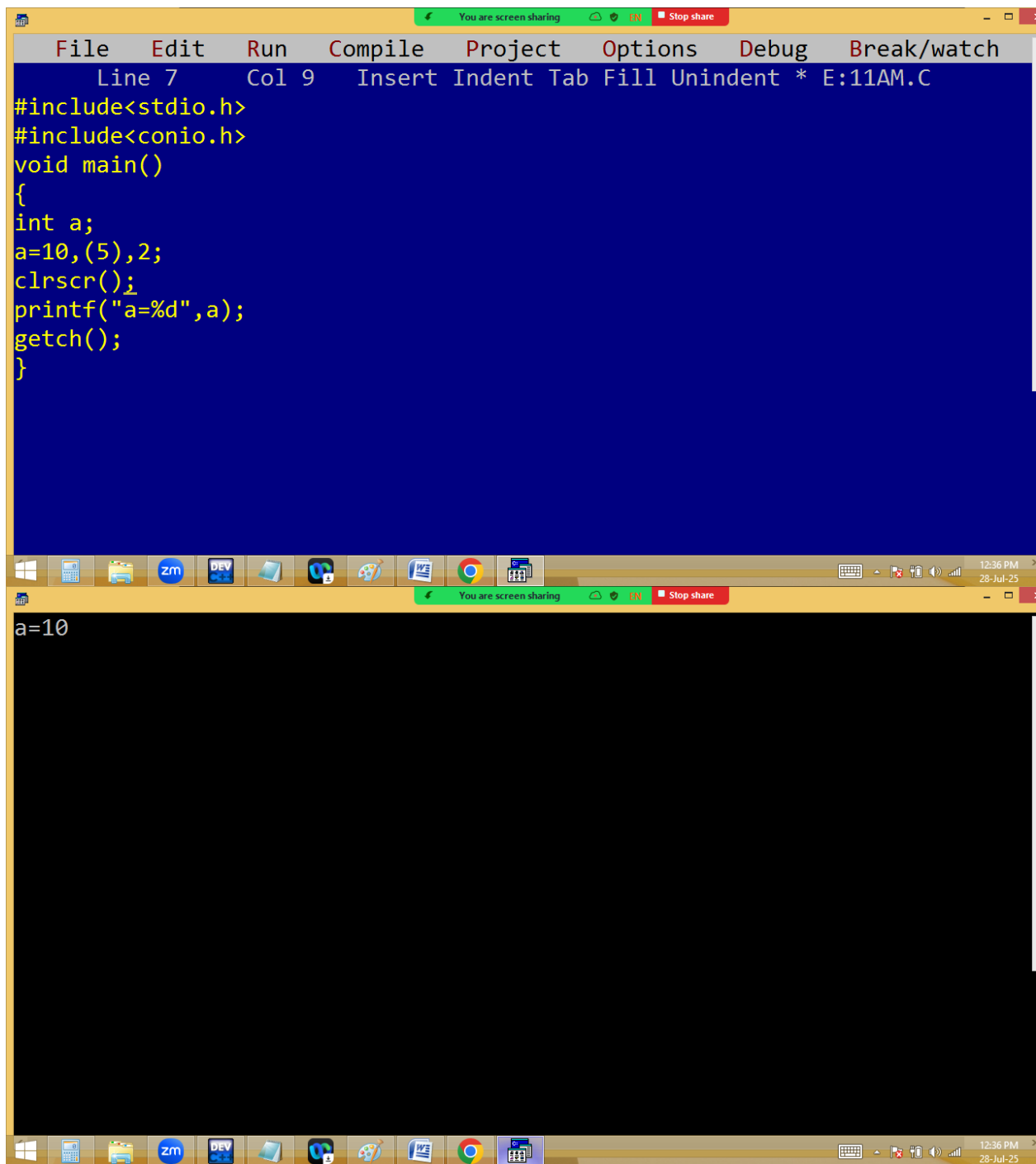
```
Line 6 Col 9 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a;
a=10,5,2;
clrscr();
printf("a=%d",a);
getch();
}
```

The bottom window is a terminal with a yellow title bar and a green status bar at the bottom. The status bar contains the text "You are screen sharing" and "EN". The terminal displays the output "a=10_". The desktop taskbar at the bottom shows various icons, including the Windows Start button, task view, file explorer, and several application icons. The system tray on the right shows the time as 12:33 PM and the date as 28-Jul-25.

int a; // declaration

a = 10, 5, 2; // initialization





```
#include<stdio.h>
#include<conio.h>
void main()
{
int a;
a=10,(5),2;
clrscr();
printf("a=%d",a);
getch();
}
```

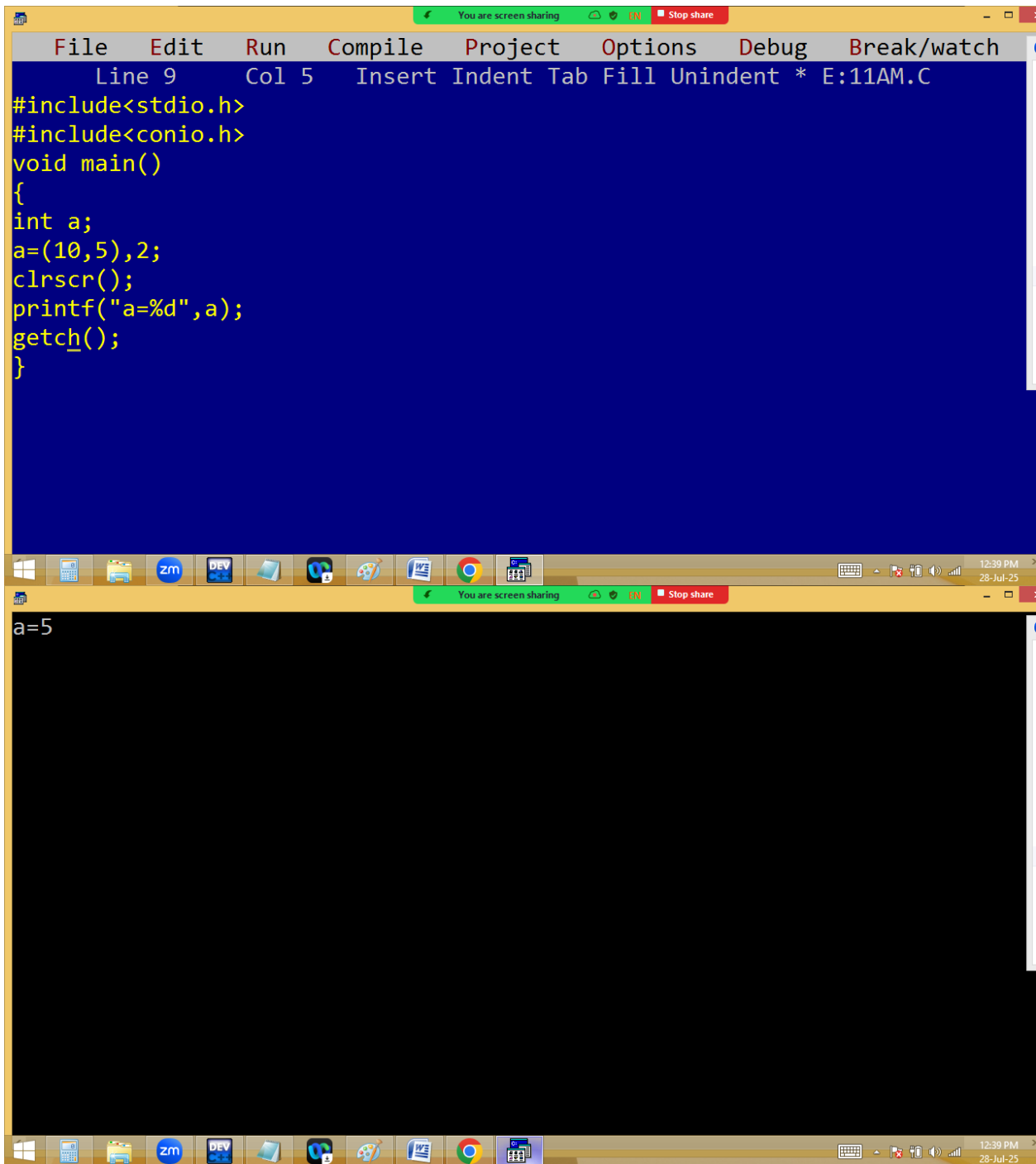
a=10

a = 10, (5), 2;



a = 10, 5, 2;





The image displays two overlapping windows from a Windows operating system, likely a Visual Studio IDE, showing the execution of a C program.

The top window is the source code editor for a file named `E:11AM.C`. The menu bar includes `File`, `Edit`, `Run`, `Compile`, `Project`, `Options`, `Debug`, and `Break/watch`. The status bar at the bottom of this window indicates `Line 9`, `Col 5`, and provides options: `Insert`, `Indent`, `Tab`, `Fill`, `Unindent`, and `*`. The code is as follows:

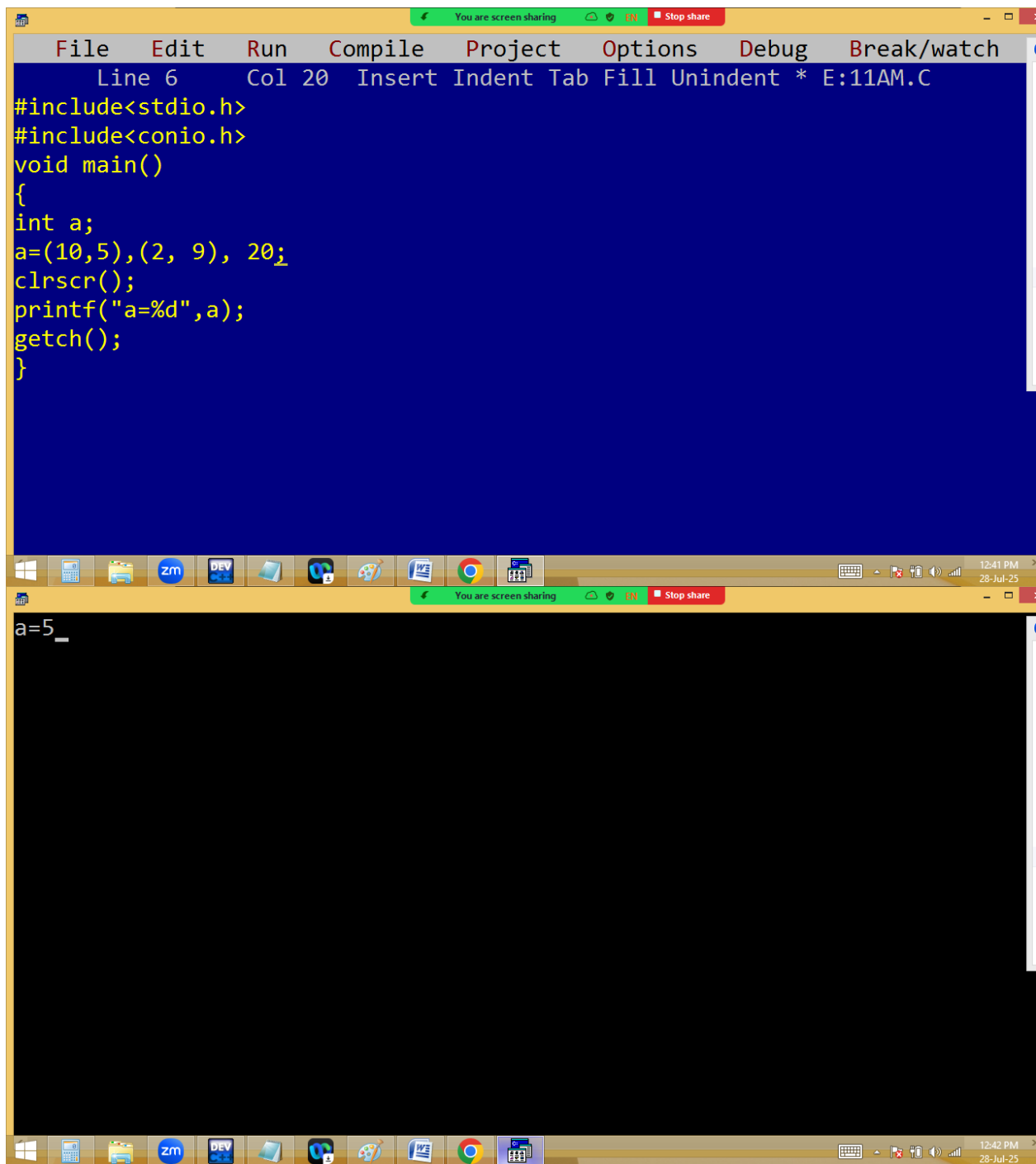
```
#include<stdio.h>
#include<conio.h>
void main()
{
    int a;
    a=(10,5),2;
    clrscr();
    printf("a=%d",a);
    getch();
}
```

The bottom window is the output console, which is black with white text. It displays the output of the program: `a=5`. The status bar at the bottom of this window shows the time `12:39 PM` and the date `28-Jul-25`. Both windows have a taskbar at the bottom with various application icons, including `zlm`, `DEV`, and `Google`.

a=(10, 5), 2;

$\xrightarrow{\quad}$
L R

a = 5, 2;

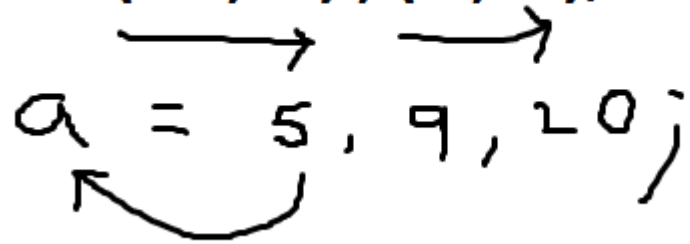


```
File Edit Run Compile Project Options Debug Break/watch
Line 6 Col 20 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a;
a=(10,5),(2, 9), 20;
clrscr();
printf("a=%d",a);
getch();
}
```

a=5_

$a = (10, 5), (2, 9), 20;$

$a = 5, 9, 20;$



The image shows a screenshot of a Turbo C++ (TC) IDE. The top window displays a C program with the following code:

```
File Edit Run Compile Project Options Debug Break/watch
Line 6 Col 10 Insert Indent Tab Fill Unindent * E:11AM.C
#include<stdio.h>
#include<conio.h>
void main()
{
int a;
clrscr();_
a=printf("Mine Pyar Kiya"), printf("Kahona Pyar Hai");
printf("%d",a);
getch();
}
```

Below the code editor, a status bar indicates "You are screen sharing" with a green bar and a "Stop share" button. The bottom window shows the output of the program:

```
TC
Mine Pyar KiyaKahona Pyar Hai14
```

The bottom status bar also shows "You are screen sharing" with a green bar and a "Stop share" button. The Windows taskbar at the bottom includes icons for various applications and the system clock showing 12:47 PM on 28-Jul-25.

\checkmark
 $a = p(\text{"Mine Pyar Kiya"}), p(\text{"Kahona Pyar Hai"});$
 \checkmark

$a = 14 \checkmark$, 15
