

7Loops_And_Pattern2

The screenshot shows a Google Keep note on a grid background. The text is handwritten in blue ink. At the top, it says 'Session will start at 12:00 PM'. Below this, there are three lines of text: '=> pattern prog => To used to programming & Thinking?', '=> Tomo => class & object, JVM Data types, instances ----', and '=> Q&A => Questions'. The last line is followed by 'chat -> knowledge / x's ----' and 'class interaction not all'. A green checkmark is drawn at the bottom left. In the bottom right corner, there is a small video thumbnail showing a man with a beard and a white shirt, with the name 'Hydra Elbass' and the word 'GAMES' visible below it.

Session will start at 12:00 PM

=> pattern prog => To used to programming & Thinking?

=> Tomo => class & object, JVM Data types, instances ----

=> Q&A => Questions

chat -> knowledge / x's ---- class interaction not all

Hydra Elbass
GAMES

6:20 PM

Keep.google.com/notes/18459371727327863279

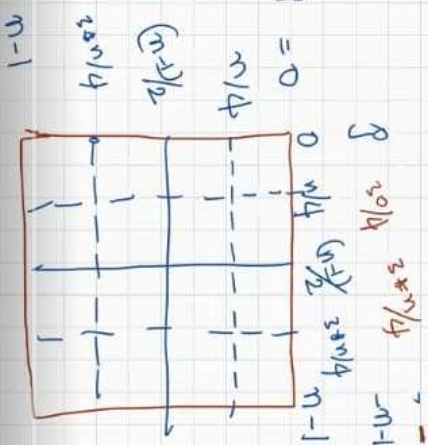
3.3 K/s



19th Oct Live Class Pattern programming part 02.coursedl.org



30:35

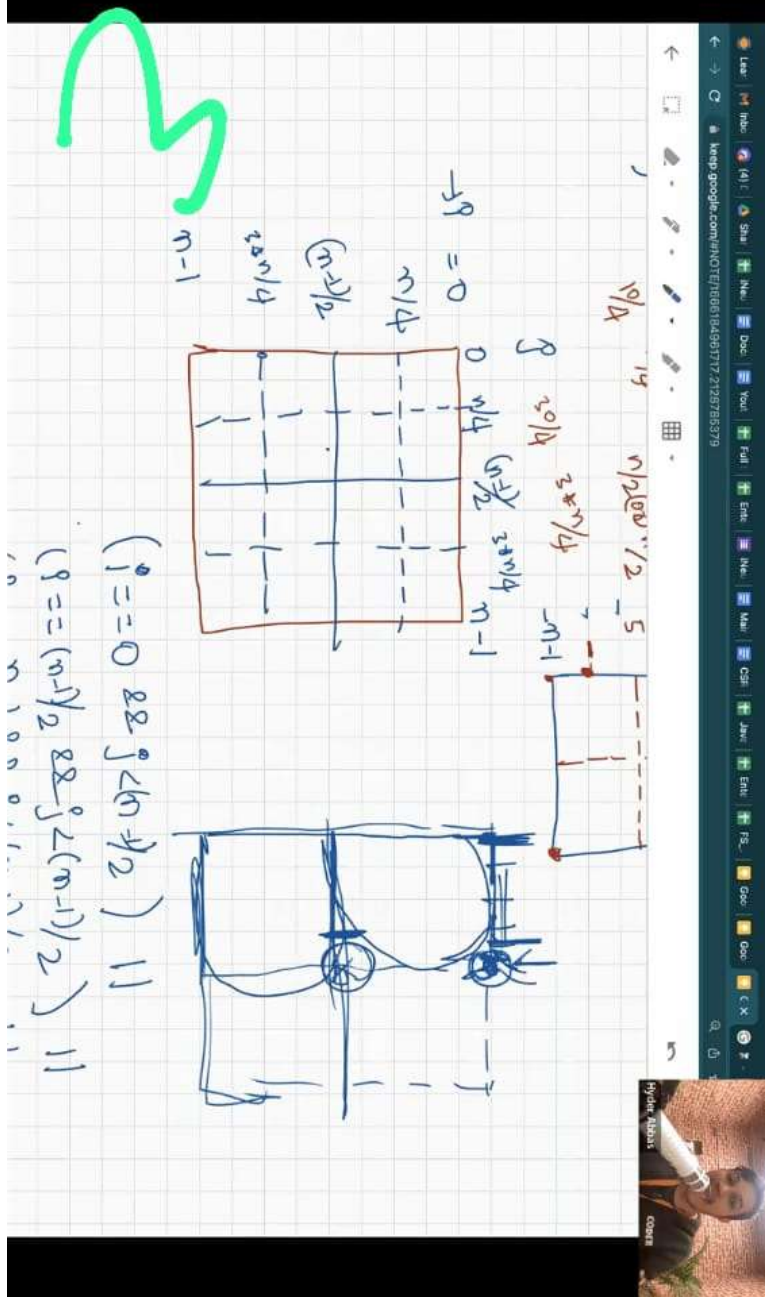


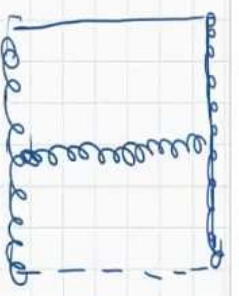
$(i = 0 \text{ to } n-1) \{$
 $(j = 0 \text{ to } n-1) \{$

1.55x

-3:10:28







$$= \gamma \int_0^1 = 0.827 = n-11$$
$$y = -(n-1)/2$$

7


```

1 public class Launch4 {
2     public static void main(String[] args) {
3         // TODO Auto-generated method stub
4
5         int n=10;
6         for(int i=0;i<n;i++)
7         {
8             for(int j=0;j<n;j++)
9             {
10                // G (i==0 && i>0 && i<n-1) ||
11                (i==(n-1)/2 && j>=(n-1)/2 && j<=(3*n)/4) ||
12                (j==(3*n)/4 && i>=(n-1)/2) ||
13                (i==n-1 && j<(n-1)/2) ||
14                (j==(n-1)/2 && i>=(n-1)/2)
15                if()
16                {
17                    System.out.print("*");
18                }
19            }
20            else
21            {
22                System.out.print(" ");
23            }
24        }
25        System.out.println();
26    }
27 }
28
29

```



→




```

1 public class Launch4 {
2     public static void main(String[] args) {
3         // TODO Auto-generated method stub
4         int n=10;
5         for(int i=0;i<n;i++)
6         {
7             for(int j=0;j<n;j++)
8             {
9                 if((i==0 && j<n-1) || j==0 || (i==n-1 && j<n-1) || (j==n-1 && i>0 && i<n-1) )
10                {
11                    System.out.print("*");
12                }
13                else
14                {
15                    System.out.print(" ");
16                }
17            }
18            System.out.println();
19        }
20    }
21 }
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```



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// IUBU AUTO-generated method stub
int n=10;
for(int i=0;i<n;i++)
{
    for(int j=0;j<n;j++)
    {
        // G (i==0 && j>0 && i<n-1) ||
        /*j==0 && i>0 && i<n-1) ||
        (i==(n-1)/2 && j>=(n-1)/2 && j<=(3*n)/4) ||
        (j==(3*n)/4 && i>=(n-1)/2) ||
        (i==n-1 && j<(n-1)/2) ||
        (j==(n-1)/2 && i>=(n-1)/2)*
        if(j==0 || j==(3*n)/4 || i==(n-1)/2 && j<=(3*n)/4)
        {
            System.out.print("*");
        }
        else
        {
            System.out.print(" ");
        }
    }
    System.out.println();
}

```




```

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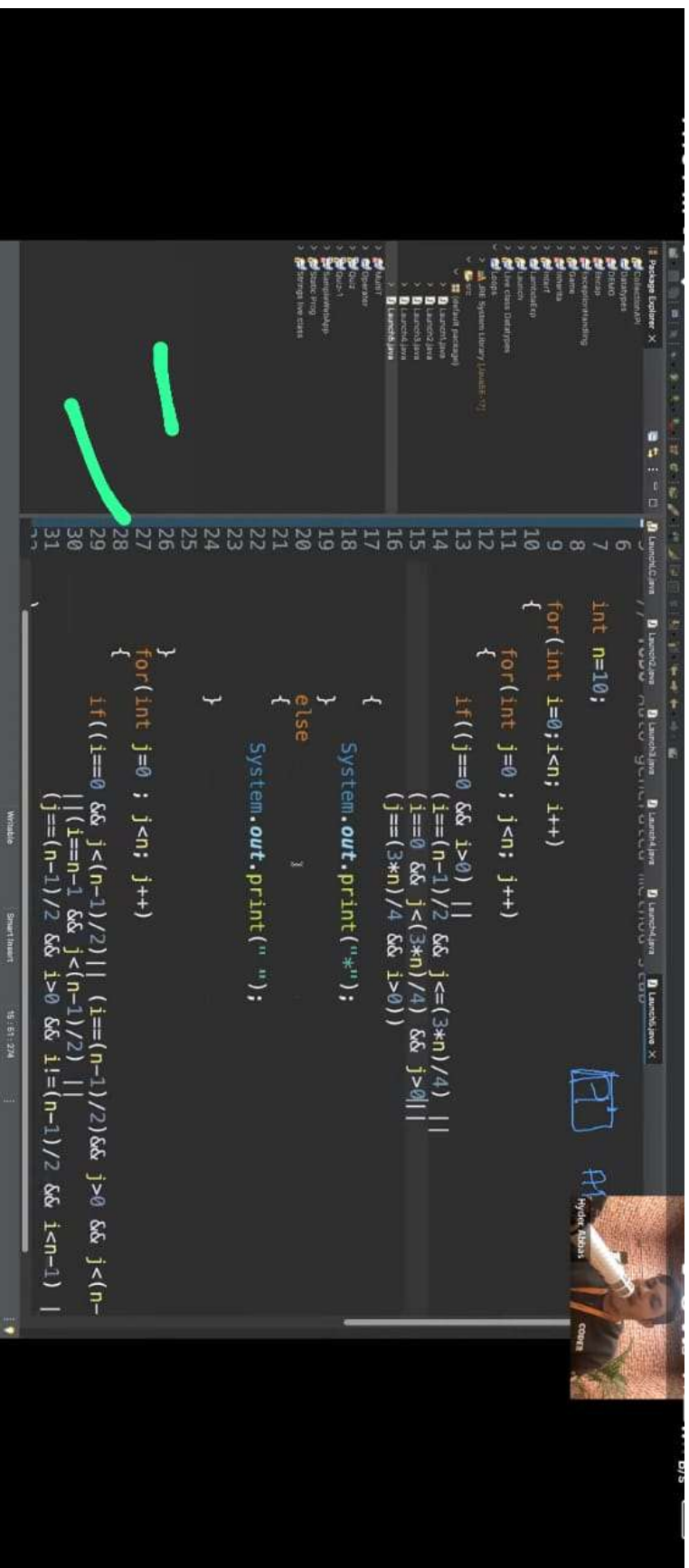
{
    for(int j=0; j<n; j++)
    {
        // G (i==0 && j>0 && j<(3*n)/4) ||
        /* (j==0 && i>0 && i<n-1) ||
        (i==(n-1)/2 && j>=(n-1)/2 && j<=(3*n)/4) ||
        (j==(3*n)/4 && i>=(n-1)/2) ||
        (i==n-1 && j<(n-1)/2) ||
        (j==(n-1)/2 && i>=(n-1)/2) */

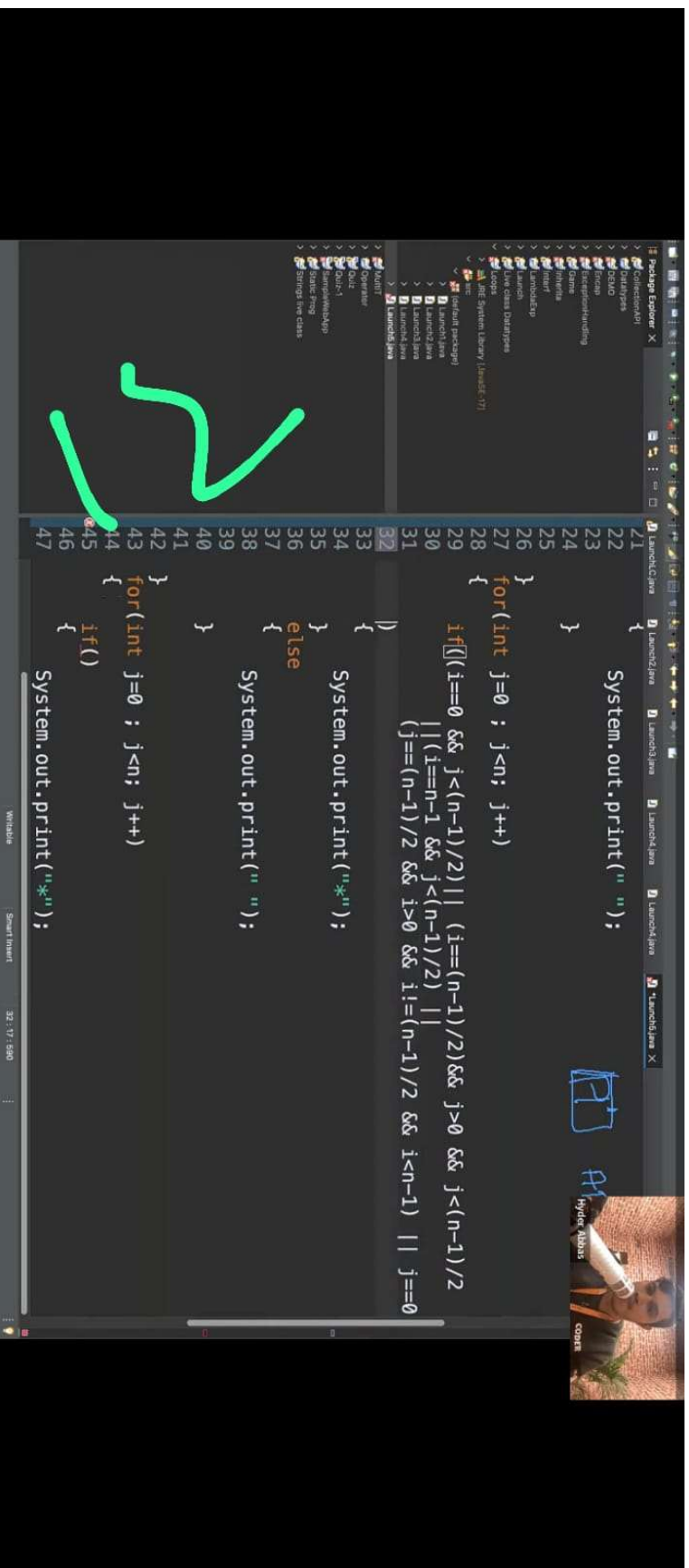
        //H j==0 || j==(3*n)/4 || i==(n-1)/2 && j<=(3*n)/4
        if(j==0 || i==0 && j<(n-1)/2 || i==(n-1)/2 && j<(n-1)/2 ||
            j==(n-1)/2 && i<(n-1)/2 && i!=0)
        {
            System.out.print("*");
        }
        else
        {
            System.out.print(" ");
        }
    }
    System.out.println();
}
}

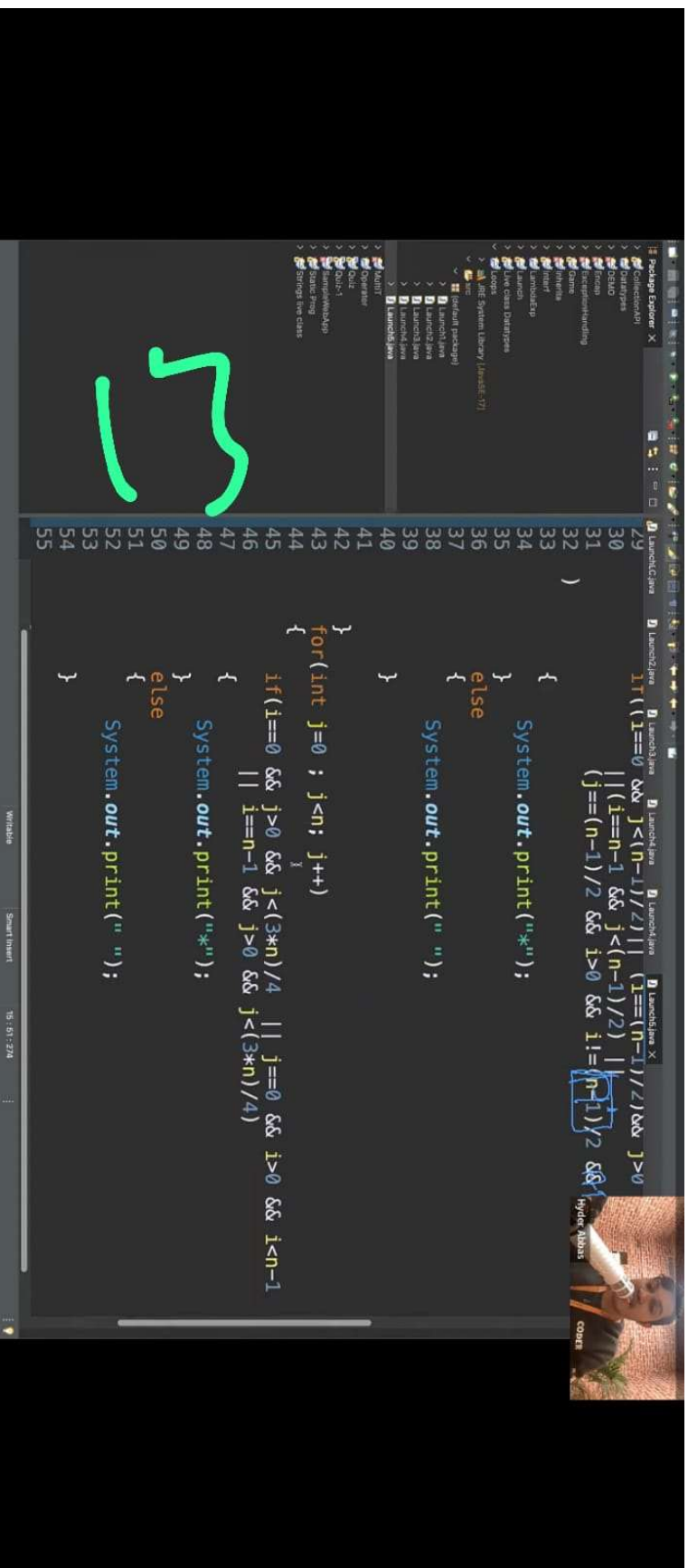
```

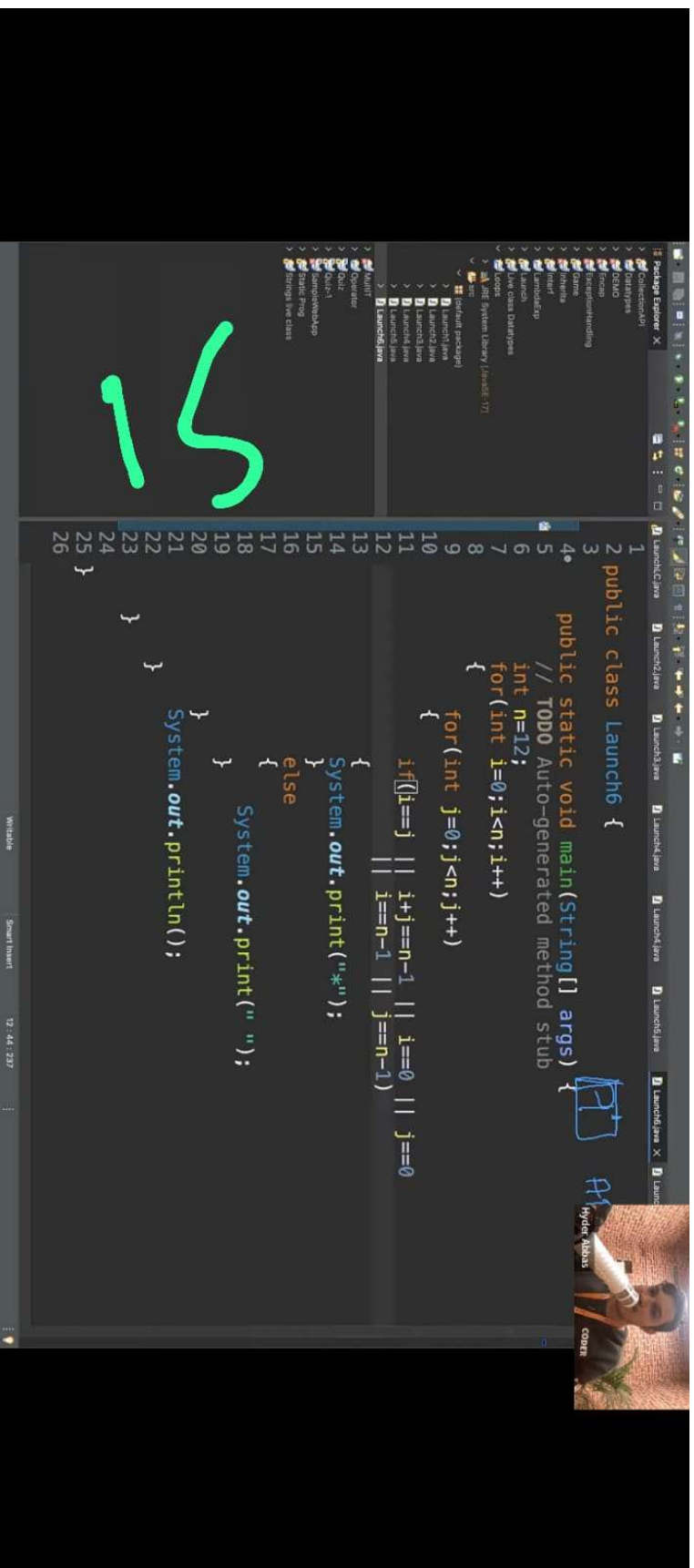
9

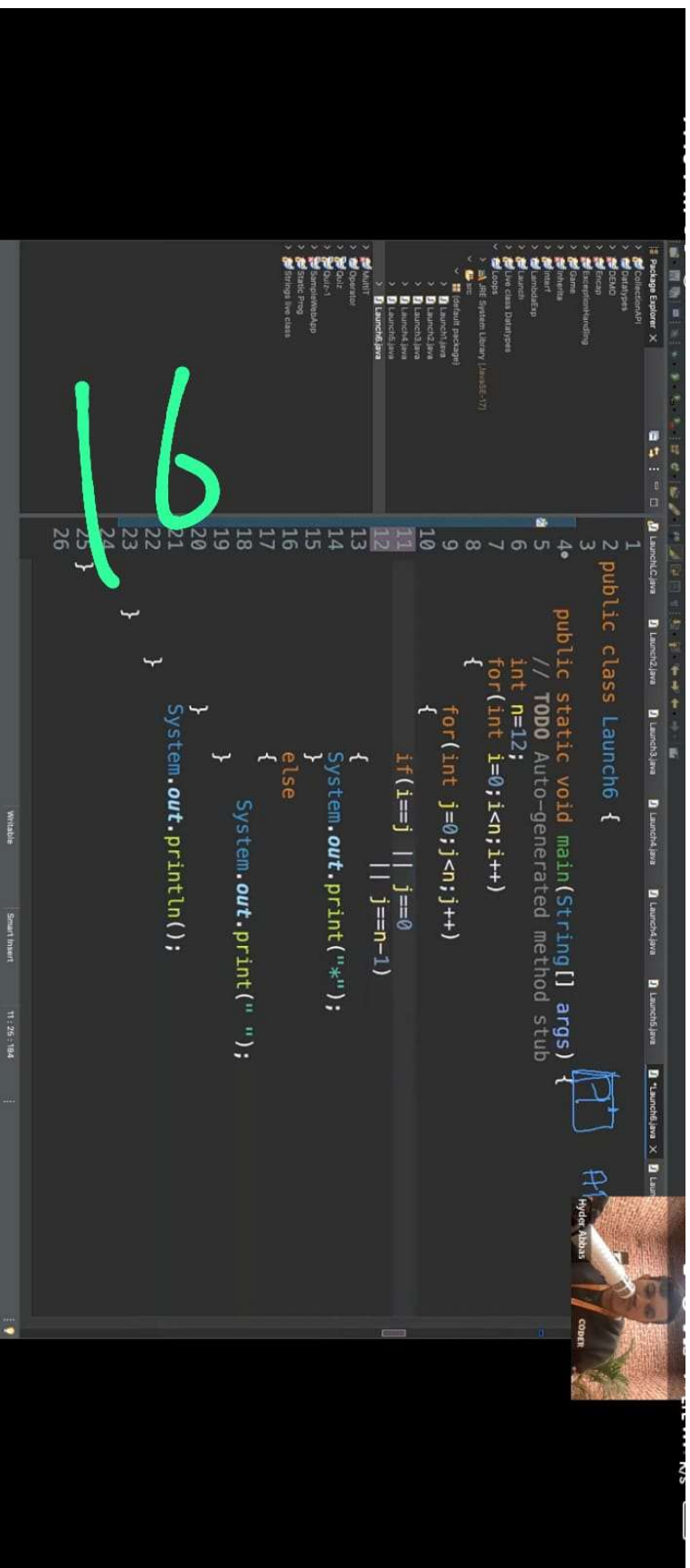












$$\begin{aligned}
 &1 + 2 + 3 + \dots + n \\
 &= (1+n) + (2+(n-1)) + (3+(n-2)) + \dots + (n/2 + (n/2 + 1)) \\
 &= (n+1) + (n+1) + (n+1) + \dots + (n+1) \\
 &= (n+1) \times \frac{n}{2} \\
 &= \frac{n(n+1)}{2}
 \end{aligned}$$

$$\boxed{\frac{n(n+1)}{2}}$$

The screenshot shows an IDE window with the following code:

```

args) {
    d stub
}

);

(" " );

```

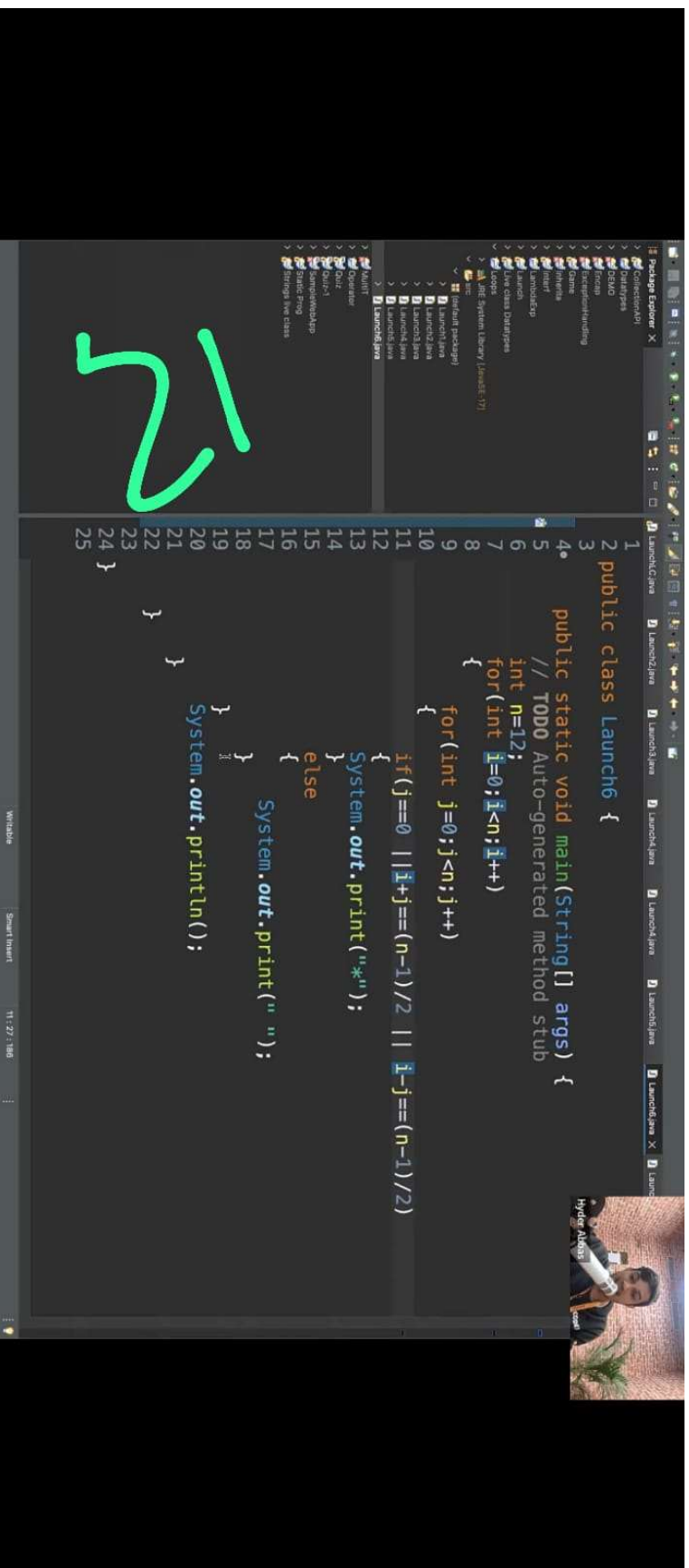
A large, handwritten red number '17' is overlaid on the bottom right of the code area.

Handwritten notes on graph theory, including a graph with 5 vertices and 7 edges, and various mathematical derivations.

The graph shows 5 vertices and 7 edges. The vertices are labeled with numbers 1 through 5. The edges are labeled with numbers 1 through 7. The graph is a complete graph K_5 minus one edge.

Mathematical derivations include:

- $$P_1 = 0$$
- $$P_2 = 0$$
- $$P_3 = 0$$
- $$P_4 = 0$$
- $$P_5 = 0$$
- $$P_6 = 0$$
- $$P_7 = 0$$
- $$P_8 = 0$$
- $$P_9 = 0$$
- $$P_{10} = 0$$
- $$P_{11} = 0$$
- $$P_{12} = 0$$
- $$P_{13} = 0$$
- $$P_{14} = 0$$
- $$P_{15} = 0$$
- $$P_{16} = 0$$
- $$P_{17} = 0$$
- $$P_{18} = 0$$
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- $$P_{20} = 0$$
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- $$P_{28} = 0$$
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- $$P_{97} = 0$$
- $$P_{98} = 0$$
- $$P_{99} = 0$$
- $$P_{100} = 0$$

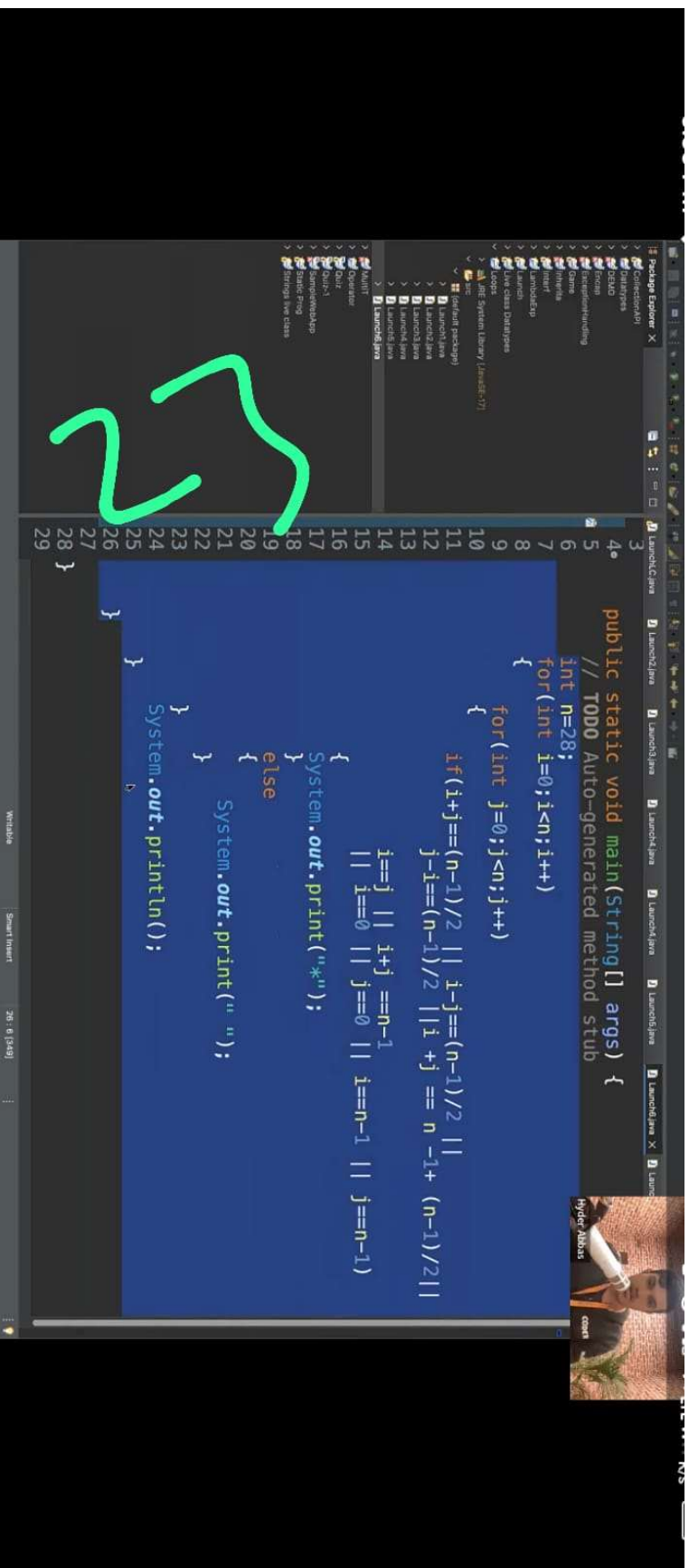


22

```
1 public class Launch6 {
2
3
4     public static void main(String[] args) {
5         // TODO Auto-generated method stub
6         int n=13;
7         for(int i=0;i<n;i++)
8         {
9             for(int j=0;j<n;j++)
10            {
11                if((i+j)==(n-1)/2 || i-j==(n-1)/2 ||
12                   j-i==(n-1)/2 ||
13                   i+j == n-1
14                      + (n-1)/2)
15                {
16                    System.out.print("*");
17                }
18            }
19            else
20            {
21                System.out.print(" ");
22            }
23        }
24        System.out.println();
25    }
26 }
27 }
```

Workspace | Smart IntelliJ | 14,345,288

Hyder Abbas

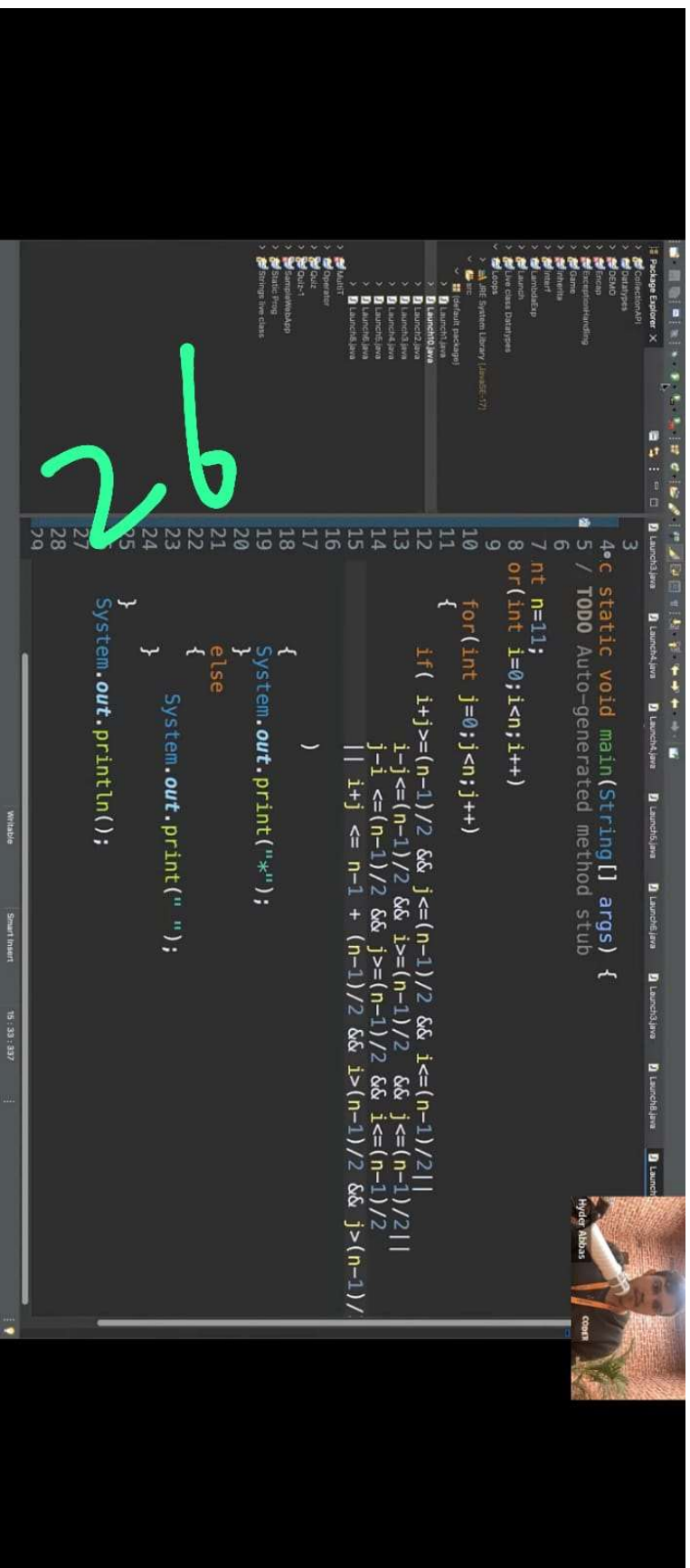



```
1 public class Launch8 {
2
3
4     public static void main(String[] args) {
5         // TODO Auto-generated method stub
6
7         int n=11;
8         for(int i=0;i<n;i++)
9         {
10             for(int j=0;j<n;j++)
11             {
12                 if(i==0 || i==n-1 || i+j==n-1)
13                 {
14                     System.out.print("*");
15                 }
16                 else
17                 {
18                     System.out.print(" ");
19                 }
20             }
21             System.out.println();
22         }
23     }
24 }
25
26
27
```

N

25





Q>

```
int x=10;  
if(++x < 10 && ((x/0)>10) ) { //11<10==> if(false)  
    System.out.println("Hello");  
}
```

```
else {  
    System.out.println("Hi");  
}
```

- A. Hello
- B. Hi
- C. Compile Time Error
- D. Exception
- E. None of the above.

Answer : B

21



Q>

Give

```
int i=10; //10
```

```
int j=20; //30
```

```
int k= (i+=i)/5; //
```

```
k = (j+=j)/5
```

```
k = (i=20+10)/5
```

```
k = (j=30)/5
```

```
k = 30/5
```

```
k = 6
```

```
System.out.println(i+" "+j+" "+k);
```

```
A.10:30:6
```

```
B.10:22:22
```

```
C.10:22:20
```

```
D.10:22:6
```

Answer : A

28



```
stint-1;  
stint-2;  
jelsef  
stint-3;  
stint-4;  
}  
int x =10;  
if(x)//CE: unexpected type required: boolean,found:int  
System.out.println("hello");  
jelsef  
System.out.println("hiee");  
}  
A. hello  
B. hiee
```

- C. CompileTime Error
- D. Some problem by jvm at the execution
- E. None of the above

Answer: C I



File Edit View

- D. Some problem by jvm at the execution
- E. None of the above

Answer: C

Q>

int x =10;

if(x=20){/CE: unexpected type required: boolean,found:int

System.out.println("hello");

}else{

System.out.println("hiee");

}

A. hello

B. hiee

C. CompileTime Error

D. Some problem by jvm at the execution

E. None of the above

Answer: C

30



Ln 97 / Col 99

22°C
Run to Stop

100%

Windows (CTRL)

UTF-8

ENG IN 22:26 19-10-2022

```
Q>
int x = 10;
if(x==20){ //operator used is Equality operator ==, != output is boolean
    System.out.println("hello");
}else{
    System.out.println("hiee");
}
```

- A. hello
- B. hiee
- C. CompileTime Error
- D. Some problem by jvm at the execution
- E. None of the above

Answer: B

5



File Edit View

```
Q>
boolean b=false;
if(b=true){//assignment operator is evaluated on boolean type, JVM iff(true)
    System.out.println("hello");
}else{
    System.out.println("hiee");
}
```

- A. hello
- B. hiee
- C. CompileTime Error
- D. Some problem by jvm at the execution
- E. None of the above

Answer : A

52



Q>

```
boolean b=false;  
if(b==true){//Equality operator result is boolean type , JVM iff(false == true) ----> iff(false)  
    System.out.println("hello");  
}else{  
    System.out.println("hiee");  
}
```

- A. hello
- B. hiee
- C. CompileTime Error
- D. Some problem by jvm at the execution
- E. None of the above

Answer: B

1

33



Answer: B

Q>

if(boolean)

stmt-1;

Note: if there is only statement which needs to be a part of if, then {} is optional.

if(true)

System.out.println("hello");

A. Compile Time Error

B. hello

C. Some problem by jvm at the execution

D. None of the above

Answer : B

28



File Edit View

Answer : D(becoz ; is also valid java statement)

Q>

Note: if there is only statement which needs to be a part of if, then {} is optional, but that statement should not be a declarative statement.

```
public class Test{  
    public static void main(String args[]){  
        if(true)  
            int x=10; //CE: declaration not allowed here  
    }  
}
```

- A. Compile Time Error
- B. hello
- C. Some problem by jvm at the execution
- D. No Output

Answer: A

Q

35



Ln 199, Col 2
22°C
Run to stop



100% Windows (CTRL) UTE-8
22:40
19-10-2022

Answer: A

Q>

```
public class Test{  
    public static void main(String args[]){  
        if(true){  
            int x=10; //valid for compiler becoz of {}  
        }  
    }  
}
```

- A. Compile Time Error
- B. hello
- C. Some problem by jvm at the execution
- D. No Output

Answer: D

```
public class Test{  
    public static void main(String args[]){  
        if(true)  
        System.out.println("hello");  
    }  
}
```

36



Answer: D

Q>

```
public class Test{  
    public static void main(String args[]){  
        if(true)  
            System.out.println("hello");//Dependent of if statement  
        System.out.println("hiie");//Independent of if statement  
    }  
}
```

How many statements are independent of if?

- A. 0-stmt
- B. 1-stmt
- C. 2-stmt
- D. 3-stmt

Answer: B



3