

	If the condition is true, then execute the
	line of code within the scope of if block.
	prondition true, then A is brinted
$\in \mathcal{X} \rightarrow$	if (marks > 95) {
	cout << "A" is * E - U/ 009 + 001
	First we solve Ilmore territ
2. 1	Laving intries precelence than + . Firet
Ques	Predict the output of following code
	A SPIN
	if (score <300) {
	cout << "India wins";
	0.8 · (0.8 · (0.8 · (0.1))
	cout << "Pak wine";
	3
(1)	Score = 323 Pak wins
(11)	Score = 123 India wins Pak wins
\C .	no new line
Notes	If condition is false, then the line just next
	to the scope of if will be executed.
	Rut this looks ill in a deal is
	But this looks illogical & hence if else can be used.
	\$\cdot
, , ,	if else - then work in) it is so to
	117 15(1)(
-	cout << "India wins";
	3
	else {
	cout << "Pak wins";
	3
	The control will go inside the else block
	USC DIOCR
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	only when condition is false.
	radium di sale dan di
(i)	condition → score = 323 Pak wins
(ii)	condition - score = 123 India wins
	and the struction are then known
	What to do if there are multiple conditions.
	We will be using if else if else statements
	Other solution can be the nested if else
	one within
	if (cond1) { 3 } another
31	else { Nested if else
	if (cond2) { 3 for multiple
	else { 1 3 al alleman and conditions alleman
	3
<u> </u>	80.00.
	But more readable will be using if else if
-	and else blocks together.
	- Coach wich hut tor nous ore interest
Ob Co	if else if else
	if (cond1) d
2.	else if (cond2) of miles
4.	
W.	Flow of above code execute the block &
V	If cond is true, then, go to line 4 but
E	if cond is false, then check for conda.
1	13 COTTON 13 3 CT 3
V	If conda is true, then execute the block &
	an to line 4 but if cond 2 is false, then
100	go to line 4 but if cond 2 is false, then we will have to execute the else block.
	400/ YOU 40 TO TO CITY
Wote	the else block
	the else block
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	ruge
	We have to write the condition with
	if and else if blocks.
	and the state of t
	Also we have to remember, else block is
	optional as if we don't write it then
	we won't be getting any syntax ever-
AT 6	
J Wo	te if () { m 3 m m m m m m m m m m m m m m m m m
	else if () { 3 } Can be multiple else if
	else if () { } blocks.
	else { } - Optional
	the second of th
	Also there can be multiple if blocks.
	TEV TEV
4	Loops
	We have various types of loops such as for loop, while loop, do while loop and for each loop but for now we will be studying
	for loop, while loop, do while loop and for
	each loop but for now we will be studying
	for loop.
	Loops are used when we want to do same
	task multiple times.
	Ex- Printing name 5 times, counting from
-	12 to 5 etc.
1	C On Dank Cupton
1	for loop syntax initialization condition updation (increment
	for (inti=0; i <5; i=i+1) { // Scope of for loop
_ 5	150x (1116 (20) (3) x=(+1) {
-	The use of for loop
	Flow of for loop
1	The initialization of variable takes place.

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2)	The condition will be checked & if the condition
	is true then flow goes inside for loop.
3)	
	After execution, updation of variable takes place & then if the condition is true, then
4	only flow goes inside for loop.
4)	This will go on until the condition becomes
	false \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
	Also note that there will be only one time
	initialization.
<u> </u>	Predict the olp of below code
-	for (int i=0; i<3; i++) € cout << i;
-	2 Cout < < C >
	Output
	Course What work he allo sell televinor - to !
Note	→ Updation can be done in any way say
- 2000	L = L + 2 $L = L - 2$
Ш	じ= 2* こ
1	There are many other ways of updation
	as well.
	Low to the econol tond special to sid!
Ques	1. De la
	for (int i = 5; (i) = 0 && i < = 10); i= i+1) {
	Cout << i>
	3
1977	Output
	5678910
	5 the law anation live get to know
	From the above question, we get to know
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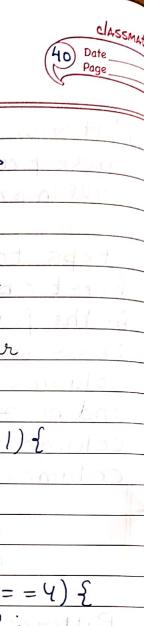
	cla	SSMAT
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Rother	that there can be many conditions.
	Trace Trock Street and and envi
Ques-	Out of initialization, updation & condition,
	which of them are optional & which are
	mandatory?
8.20	his will be an w unberthe conduction mere
	Initialization ?
	Condition & All are optional
2 m	Updation of June world to distance A
	See (• •) S
	for (;;) { if (1<5) { This will not give
	cout << i > any syntax everor
	L = L + 1
	3
	3
	1 S 1 6
Ques	What will be 0/p of following code?
(i)	int mist par al each ad are northing to
	if (cin >> n) { cout << "Bhavya";
	vent3, has inter quen monte que areal
	This will always print Bhavya for all values.
	mis vive and and de dia it all values.
(ii)	int his cin>>ni
	if (cout << n) { cout << "Bhavya";
	3 4 11A 111C
	T in first basis is
	This will first print the value of n 4 then.
	This will first print the value of n 4 then brint Bhavya for all value be it -ve, +ve

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-<-	mental parlure parties
	Patterns + + + + + +
	There browide warm up for logic building &
	willimprove our concept of loops.
-	VOTECHTIP TOVE OWE
	Steps to print patterns
- 1)	The purposes of YOMS
	in the fattern. These have 3 rows. ** * *
2)	Now we have to observe the no of * * * * *
2)_	columns & build a relation blue no of rows
	and no of columns. In this pattern, every
	column have 3 stars and there are 5
	columns. co c) c2 c3 c4
<u> </u>	Columns.
	YOW O → * * * * *
	γοWI → * * * *
	γοw2 , — * * * * *
-	Patterns are mostly coded using nested
, 	loops. There will be outer & inner for loop.
-	Outer for loop will be for rows & inner
<u></u>	loop will be for columns.
Code	for (int row = 0; row < 3; row = row +1) {
	f_{0x} (int (0) = 0.3 col = 3.7 cox = cox (1.3 c)
, 	cout << "*")
,	3
	cout << endli → To go to next line
	3
	$\eta_{A}(U_1) = \tilde{\epsilon} \cdot \tilde{\epsilon}$
. Not	row=row+1 is similar to row+=1
,	Square pattern
,	In this no of rows & no of columns will
,	be same.



Hollow rectangular fathern

** * - → Spaces * * Ist and last row > 5 stars Other rows -> 1st space last Star for (int i=0 ; i<3 ; i=1+1) { for (int j=0) j(5) j=j+1){ if (i = = 0 1 | i = = 2) { cout << ((* "); else { if(col = = 0) | col = = 4)- cout << " * " ; 2301 vor else of june a cout <<endl; Here i is row is column Half pyramid pattern

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	Page
	* YOW-O
	* *
	* * YOW-2
	* * * YOW-3
	Number of stars to print is one more than row number.
	Also no of stars are equal to the no of
	Also no of Stars are equal to the no of columns in that farticular row.
	for (int row = 0; row < 4; row = row +1) {
	for (int col = 0 ; col < row +1; col++){
	cout << ((* ")
	cout << endl; Discussed.
	2
	the logic
\rightarrow	Inverted by ramid pattern
	* * * * → YOW-O
	* * * > row-1
	* * → YOW-2
	* → YOW-3
	In the code of previous code we just
	have to change condition in inner
	for loop i.e
	> no. of rows . In this question
	col < n - yow
<u>E</u>	
\rightarrow	Numeric half pyramid pattern
	$1 \qquad \qquad \text{fow} - 0 \rightarrow 0 + 1 \text{ count}$
	1 2 $\gamma \circ W - 1 \rightarrow 1 + 1 = 2 count$
	2 3
colo	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
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1	

	1 la Houn just change
	In the half pyramid patterns
	In the half pyramid battern just change = cout << (** " to cout << col+1;
	Couc
	Numeric inverted half byramid
	1 2 3 4 5
	1 2 3 4
	ι
2 . 4	1002 100 100 100 100 100 100 100 100 100
	In the inverted half pyramid pattern just change cout <<"* " to
	change cout <<" *" to
1 0	cout < <col+1;< th=""></col+1;<>
11	