Ternary = ? :

if (true/false) {

} else {

}

= ( ) ? ___ : ___

a = 10 , b = 20 = large = 0

if (a > b) {

large = a }

} else {

large = b

}

large = a > b ? a : b

large = a > b ? a : b

value = ____ ? ____ : ____

if else

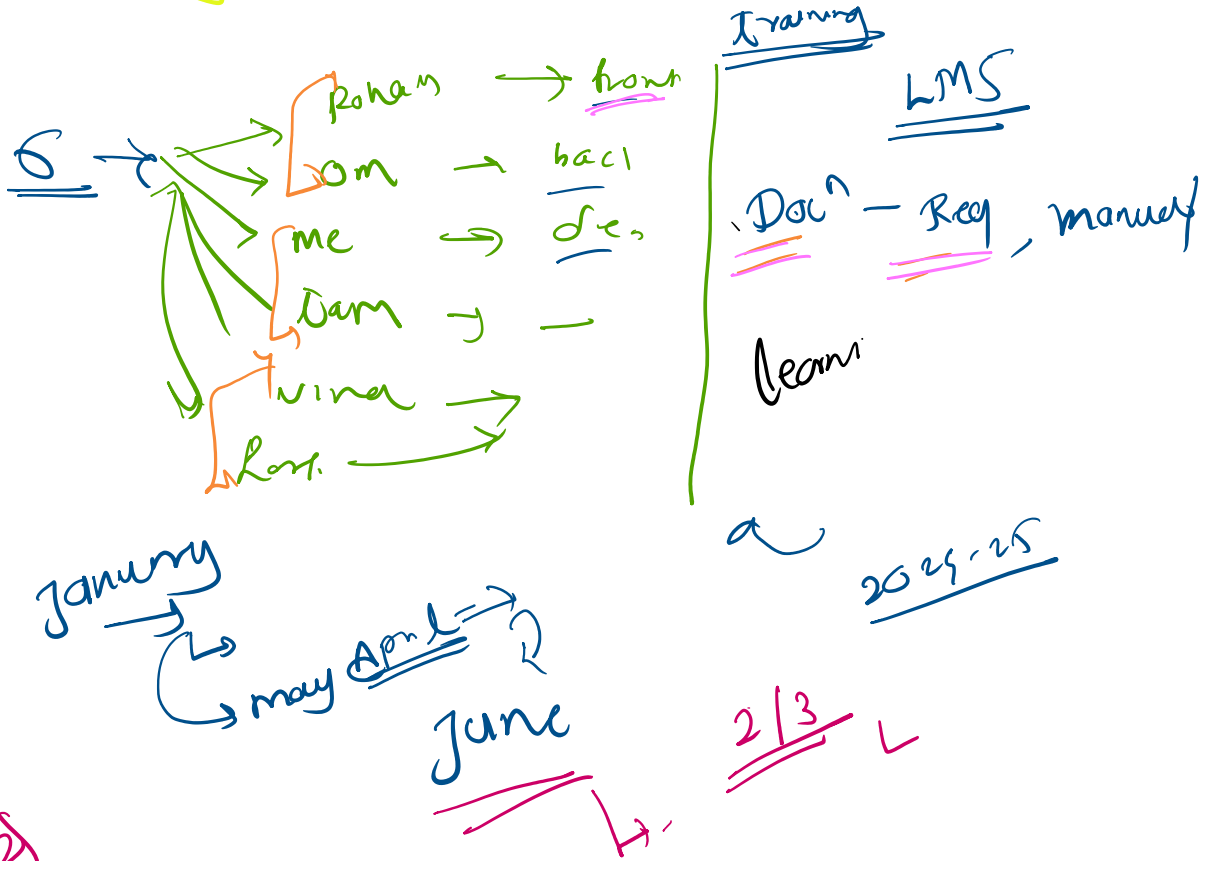
small = 0. a=10, b=20

if (a < b){

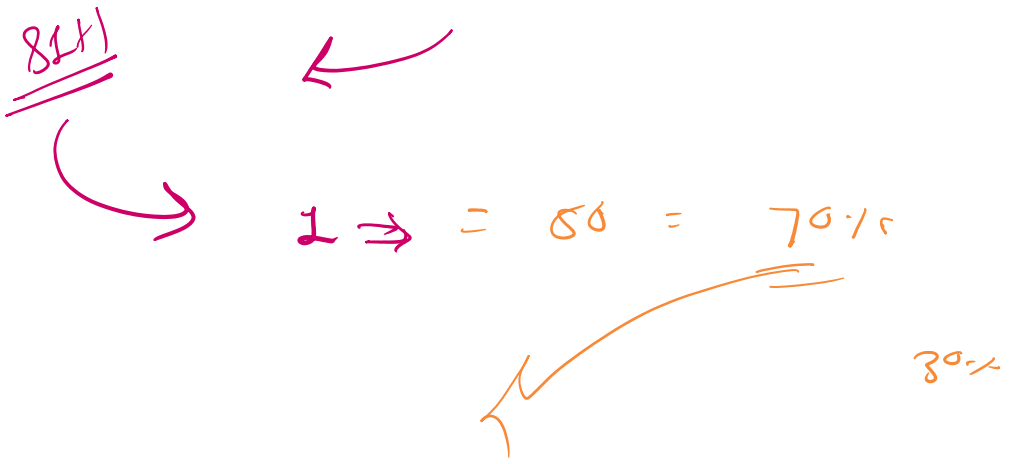
}

else{

}



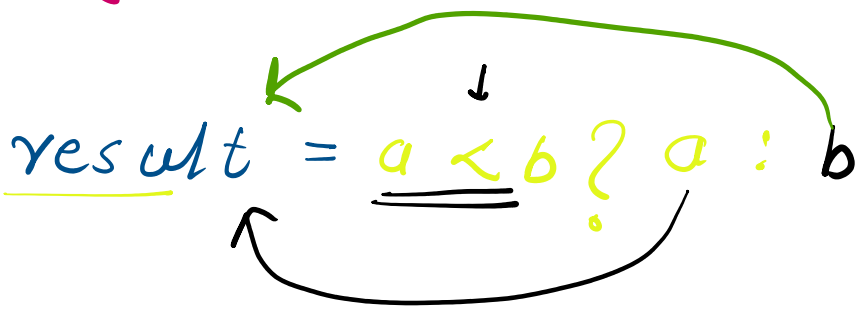
②

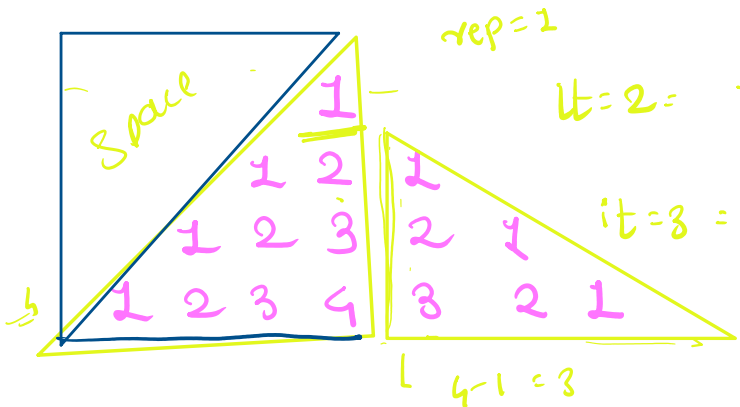


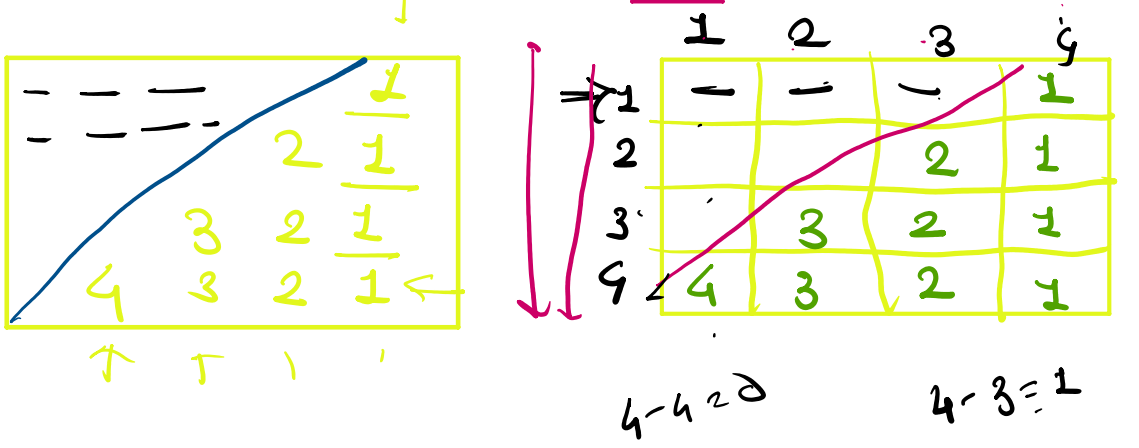
```
a = 10,  b = 20

result = 0

if (a < b) {
    result = a;
} else {
    result = b;
}
```








```
for(rep=1 ; rep<=n; rep++){

    for(space=1; space<= n-rep ;
                space++){
        soup("_");
    }

    for(num =rep ; num>=1 ; num--){
        print (num)
    }
```

1 to n
n to 1

1
1 0 (1-2)

2 | 2
2 1

2 -1

1

1 2 (1-2)

1 2 3 (1-3)

1 2 3 4 (4-4)

2

2

2 1

3 2 1

4 3 2 1

2 — 1

3 — 1

4 — 1

num = 1,

num = i

```java
public class PascalsTraingle {
    public static void main(String[] args) {
        int n = 5;
        for(int it = 1; it <= n; it++){
            for(int space = 1; space <= n - it; space++){
                System.out.print("  ");
            }
            for(int num = 1; num <= it; num++){
                System.out.print(num + " ");
            }
            for(int num = it - 1; num >= 1; num--){
                System.out.print(num + " ");
            }
            System.out.println();
        }
    }
}
```

problem

print Alphabates

(A - Z) (a - z);

(Z - A) (z - a);

1 — 9 , 9

for(j = 1; j <= 9; j++){

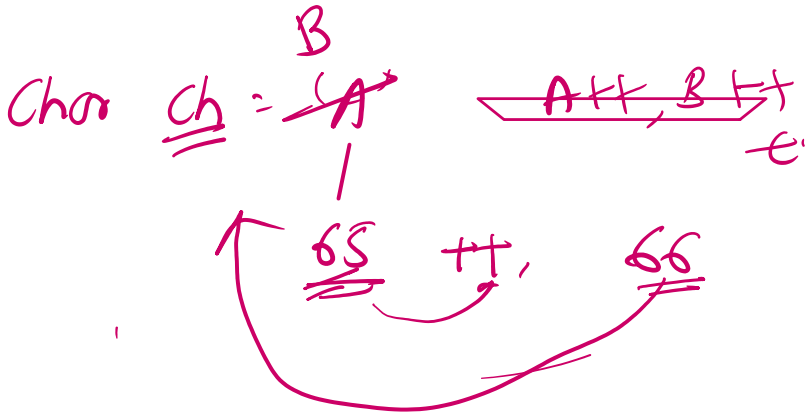
}

9 - 1 = 8 - 1 = 7 - 1 = 6 - 1 - 1 - 1 = 4 - - 1;

for(i = 9; i >= 1; i--){

for(i=9; j>=1; i--){

}



A — char

ABA

ABCBA

ABCDCBA

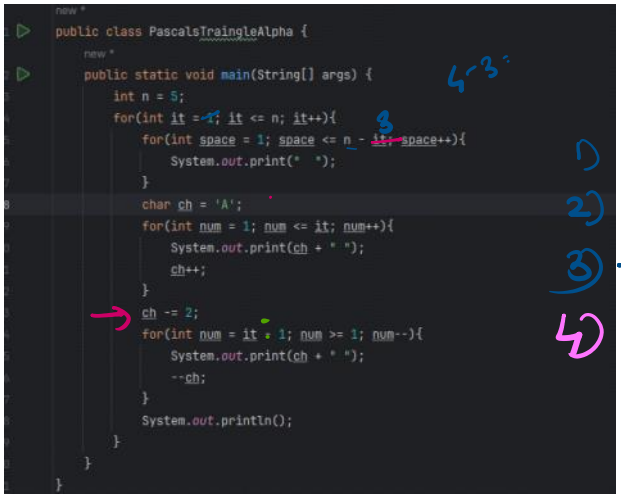
1 — numbers

1 2 1

1 2 3 2 1

1 2 3 4 3 2 1

A B C D



```
public class PascalsTraingleAlpha {

    public static void main(String[] args) {
        int n = 5;
        for(int it = 1; it <= n; it++){
            for(int space = 1; space <= n - it; space++){
                System.out.print("  ");
            }
            char ch = 'A';
            for(int num = 1; num <= it; num++){
                System.out.print(ch + " ");
                ch++;
            }
            ch -= 2;
            for(int num = it - 1; num >= 1; num--){
                System.out.print(ch + " ");
                --ch;
            }
            System.out.println();
        }
    }
}
```

4-3

3

n=4

1) - - - A

2) - - A B A

3) - A B C B A

4) A B C D C B A

68 - 2 = 66

ch = D - B

ASCII TABLE

Decimal	Hex	Char	Decimal	Hex	Char	Decimal	Hex	Char	Decimal	Hex	Char
0	0	[NULL]	32	20	[SPACE]	64	40	@	96	60	`
1	1	[START OF HEADING]	33	21	!	65	41	A	97	61	a
2	2	[START OF TEXT]	34	22	"	66	42	B	98	62	b
3	3	[END OF TEXT]	35	23	#	67	43	C	99	63	c
4	4	[END OF TRANSMISSION]	36	24	$	68	44	D	100	64	d
5	5	[ENQUIRY]	37	25	%	69	45	E	101	65	e
6	6	[ACKNOWLEDGE]	38	26	&	70	46	F	102	66	f
7	7	[BELL]	39	27	'	71	47	G	103	67	g
8	8	[BACKSPACE]	40	28	(	72	48	H	104	68	h
9	9	[HORIZONTAL TAB]	41	29	)	73	49	I	105	69	i
10	A	[LINE FEED]	42	2A	*	74	4A	J	106	6A	j
11	B	[VERTICAL TAB]	43	2B	+	75	4B	K	107	6B	k
12	C	[FORM FEED]	44	2C	,	76	4C	L	108	6C	l
13	D	[CARRIAGE RETURN]	45	2D	-	77	4D	M	109	6D	m
14	E	[SHIFT OUT]	46	2E	.	78	4E	N	110	6E	n
15	F	[SHIFT IN]	47	2F	/	79	4F	O	111	6F	o
16	10	[DATA LINK ESCAPE]	48	30	0	80	50	P	112	70	p
17	11	[DEVICE CONTROL 1]	49	31	1	81	51	Q	113	71	q
18	12	[DEVICE CONTROL 2]	50	32	2	82	52	R	114	72	r
19	13	[DEVICE CONTROL 3]	51	33	3	83	53	S	115	73	s
20	14	[DEVICE CONTROL 4]	52	34	4	84	54	T	116	74	t
21	15	[NEGATIVE ACKNOWLEDGE]	53	35	5	85	55	U	117	75	u
22	16	[SYNCHRONOUS IDLE]	54	36	6	86	56	V	118	76	v
23	17	[END OF TRANS. BLOCK]	55	37	7	87	57	W	119	77	w
24	18	[CANCEL]	56	38	8	88	58	X	120	78	x
25	19	[END OF MEDIUM]	57	39	9	89	59	Y	121	79	y
26	1A	[SUBSTITUTE]	58	3A	:	90	5A	Z	122	7A	z
27	1B	[ESCAPE]	59	3B	;	91	5B	[	123	7B	{
28	1C	[FILE SEPARATOR]	60	3C	<	92	5C	\	124	7C	|
29	1D	[GROUP SEPARATOR]	61	3D	=	93	5D	]	125	7D	}
30	1E	[RECORD SEPARATOR]	62	3E	>	94	5E	^	126	7E	~
31	1F	[UNIT SEPARATOR]	63	3F	?	95	5F	_	127	7F	[DEL]

3) A B C = * * * = 1 2 3

B C D = * * * = 2 3 4

C D E = * * * = 3 4 5

A B C ⇒ 1 = A = 65 = 65+1-1

B C D ⇒ 2 = B = 66 = 65+2-1

C D E ⇒ 3 = C = 67 = 65+3-1

A+1 ABC

65

1) A B C = A = 65 | A+1-1 = A

2 B C D = B = 66 | A+2-1 = B

3 C D E = C = 67 | A+3-1 = C

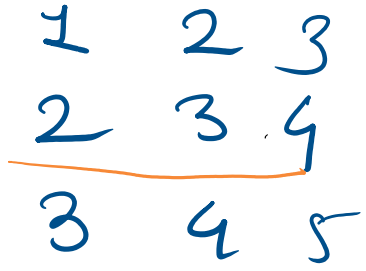
```java
public class AlphaRectangle {
    new *
    public static void main(String[] args) {
        int n = 5;
        for(int it = 1; it <= n; it++){
            char ch = (char) ('A' + it - 1);
            for(int star = 1; star <= n; star++){
                System.out.print(ch + " ");
                ch++;
            }
            System.out.println();
        }
    }
}
```

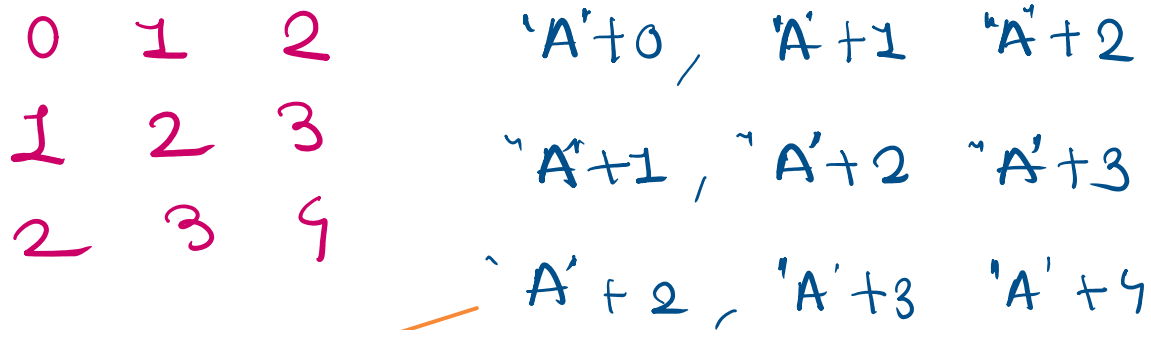
Approach 2

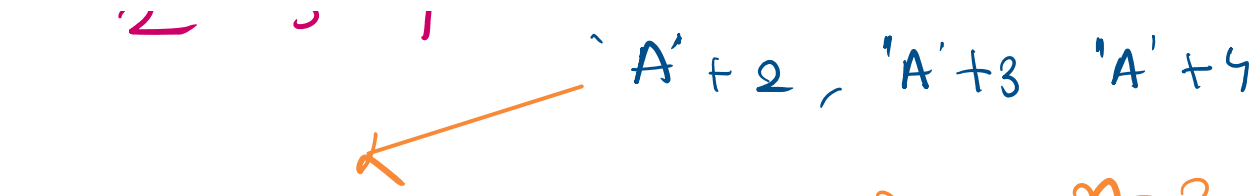
```java
public class AlphaRectangle {
    new *
    public static void main(String[] args) {
        int n = 5;
        char ch = 'A';
        for(int it = 1; it <= n; it++){
            char ch1 = ch;
            for(int star = 1; star <= n; star++){
                System.out.print(ch1 + " ");
                ch1++;
            }
            ch++;
            System.out.println();
        }
    }
}
```

Approach 3

```java
public class AlphaRectangle {
    new *
    public static void main(String[] args) {
        int n = 5;
        for(int it = 1; it <= n; it++){
            int x = it + n;
            for(int num = it; num <= x; num++){
                System.out.print((char)('A' + num - 1) + " ");
            }
            System.out.println();
        }
    }
}
```







→ A B C

→ B C D

C D E

$n = 3$

$x = 1 + 3 - 1 = 3$

$2 + 3 - 1 = 4$

$3 + 3 - 1 = 5$

$4 + 3 - 1 = 6$