```
for(int i=1; i<=4; i++){
    for(int j=3; j>=i; j--){
        printf(" ");
    }
    for(int k=1; k<=i; k++){
        printf("* ");
    }
    printf("\n");
}
```

DRY RUN

i	i<=4	j	j>=i	o/p	j--	k	k<=i	k++	i++
1	1<=4	3	3>=1	—	2				
		2	2>=1	—	1				
		1	1>=1	—	0				
		0	0>=1 X			~~1~~	~~1<=1~~	~~2~~	
				*		1	1<=1	2	
						2	2<=1 X		2
2	2<=4	3	3>=2	—	2				
		2	2>=2	—	1				
		1	1>=2 X						
				*		1	1<=2	2	
				*		2	2<=2	3	
						3	3<=2 X		3
3	3<=4	3	3>=3	—	2				
		2	2>=3 X						
				*		1	1<=3	2	
				*		2	2<=3	3	
				*		3	3<=3	4	
						4	4<=3 X		4

i	i<=4	j	j>=i	o/p	j--	k	k<=i	k++	i++
1	1<=4	3	3>=1	*		1	1<=4	2	
2	2<=4	3	3>=2	*		2	2<=4	3	
3	3<=4	3	3>=3	*		3	3<=4	4	
4	4<=4	3	3>=4 X	*		4	4<=4	5	
5	5<=4 X					5	5<=4 X		5

Assignments

①
```
- - - 1
- - 1 2
- 1 2 3
1 2 3 4
```

②
```
- - - D
- - C D
- B C D
A B C D
```

1) →
```
for (int i=1; i<=4; i++){
    int a=1;
    for(int j=3; j>=i; j--){
        printf(" ");
    }
    for(int k=1; k<=i; k++){
        printf("a ");
        a++;
    }
    printf("\n");
}
```

No.

Date 28/7/20

pattern =
```
   1
  12
 123
1234
```

i	i<=4	a	j	j>=i	o/p	j--	k	k<=i	a++	k++	i++
1	1<=4	1	3	3>=1	_	2	1	1<=1	2	2	
			2	2>=1	_	1	2	2<=1X			2
			1	1>=1	_	0					
			0	0>=1X							
2	2<=4	2	3	3>=2	_	2	1	1<=2	2	2	
			2	2>=2	_	1	2	2<=2	3	3	
			1	1>=2X			3	3<=2X			3
3	3<=4	1	3	3>=3	_	2	1	1<=3	2	2	
			2	2>=3X			2	2<=3	3	3	
							3	3<=3	4	4	
							4	4<=3X			4
4	4<=4	1	3	3>=4X			1	1<=4	2	2	
							2	2<=4	3	3	
							3	3<=4	4	4	
							4	4<=4	5	5	
							5	5<=4X			5
5	5<=4X										

pattern :-

```
- - - D
- - C D
- B C D
A B C D
```

rows	rows<=4	ch	space	space>=rows	o/p	ch++	space--	col	col<=rows	++
1	1<=4	A	3	3>=1	_	B	2			
			2	2>=1	_	C	1			
			1	1>=1	_	D	0			
			0	0>=1X						
					D	E		1	i<=1	2
								2	2<=1X	2
2	2<=4	A	3	3>=2	_	B	2			
			2	2>=2	_	C	1			
				1>=2X						
					C	D		1	1<=2	
					D	E		2	2<=2	
								3	3<=2X	3
3	3<=4	A	3	3>=3	_	B	2			
				2>=3X						
					B	C		1	1<=3	
					C	D		2	2<=3	
					D	E		3	3<=3	
								4	4<=3X	4
4	4<=4	A	3	3>=4X	A			1	1<=4	
					B			2	2<=4	
					C			3	3<=4	
					D			4	4<=4	
								5	5<=4X	5
5	5<=4X									