

	Today's age	nda		
	0 4	tterns > <n< th=""><th></th><th>2</th></n<>		2
	7 70	acing 9 in)
9				
	<u> </u>			
	$\Delta \Box C$		Jra	



Q) Point N "*" in a Single sow.

En. N:4 > ** # #

100 (int i=1; i<=N; i+1) {

Systemious. point ("*");

<u>AlgoPrep</u>



a) Given integes N, Point Square of NHH wing

N:3	N:5
** *	* * * *
* * *	* * * *
se x x	* * * *
	* * * *
	* * * *

4=3	A 1		i<:N	j<=N
box (int i.1; i	<=n;1+1){	10	4) r	+
los Cinaj	٠ <u></u>		92	t
			3	+
Syste	moud.point("*");		را	1 revit
y System.	out-pointln();			اح: ٨
٠		2	+ 1	t
outfut				+
* # *			3	+
外外外			4	1 serif
**			•	
		3	+ ()	<i>إ</i> د:٦
			1	
) 2	
			3	T
			4) serif
		950	e b	

Genif



a) Pattern 1:		•	
	he following Pat	yern.	
N=2:	*		
	* *		
ハニリニ	* ,		
	* *		
	* * *		
	* * * *	N:3	
h''		ns+=123	4
		12=17 1	j < : nor
System.out. System.out. System.out.pointly	+ = n & flipsel for g	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$: W31
		3	veni
or at		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
		4 bresit	Yeni



Q) Pattern 2:	
6 Point the following Pa	Hern.
N=3; 1	
2	
4 5 6	
М: Ч	
<u> </u>	
AI	6 9 10 N=3 Count: 118 nst = 1823 1866
int nst=1;	4 + 1 + t
loo (int i=1; i<=n; i++) <	2
ροε (in j=1; j<= ns+; j++) {	j j<:nsi
System. out. point (Count + "");	2 t 1 t
Count ++;	d 2 t
ns# ++*)	3 byenit
System.ow.pointln ():	3 + [] (= H)
	3 + 1 +
	1 3 t
	4 /
23 456	Ly 1
4 5 6	b
	CP411

Bolak HU 9:18 Pm



Q)	Pattern	2
----	---------	---

6 Point the following Pattern.

N:32 - * nsp=3 =1;

* * *

N:5: _ * nsp: 5:2

طه ملا ما ما

عاد ماد ماد

AIS

N:7 - - * 2+2 nsp= = 3:3

- k k 7-2

N:6: incorrect input



N:5: *	
- * * * * * * *	
_ * * *	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
ind nst = 1; I think for 1st 8000 int nsp = $\frac{1}{2}$;	
IN TISK - 12)	
108 (ind i=1; i<=N; i++) <= ro-	र्व भाग
T/M A TABLE	
Jor (int j=1; j <= nsp; j++) {	
System.out.point ("");	
Point or	
point or	1
108 (ind K=1; K<=nst; K++)	
System.out-point ("#")	
13 (ix= 1/2) (
b nsp	
nse = nst +2°	्र
	line
else L	
nsP++; nSt: nSt-2;	
nst: nst-25	

3 System.out. Point (n();



N:5: ind nst = 1; } think for 154 800 108 (ind i=1; i <= N; i++) <= MES for (int j=1; j <= nsp; j++) { System.ous. point (" engy son log (ind K=1; K <= nst; K++) { > nsP=1 System.out. point ("#"); 1/ (i <= 1/2) (ns& = ns+ +2% Poel for nent line else { nsp++; nst: nst-2; 3 System.out. Point (1) 3



a) Pattern 4
6 Point the following Pattern.
by low in
N=5° * * * * *
* * * *
<i>k</i>
* * * * * * * * * * * * * * * * * * *
* * * *
N+2 N +1
$\frac{\wedge +2}{2} \partial \stackrel{\wedge}{2} +1$
N:7:1 * * * * * * * * * * * * * * * * * * *
2 * + -1 292 * * +
1 -> 3 * 4 2+2 - * *
4 At-1 _ 1+2
5 x +1 x +-2 * +
7 * * * * 4 1.2 * * * +



11Psuedo code

ind nsP = 1; ind $nst = \frac{n}{2} + 1$

for (ind :=1; ?<= ~; i++) }
for (ind j=1; j<=ns1; j+1)
System.out. point ("*");
3
108 (int K=1; K<= nsp; K++) (
System.out. boind (" ");
System.ow. point (" ");
for (ind 1:1; 1<:ns1; 21+)4
System.out. point ("#");
_
if (:<= 1/2) {
ns+-~;
nsP = nsP +2;
elsel nst ++; nsp=nsp-2;
nst ++;
nsp=nsp-2;

3 System.out.pointln();



*** - **	
**#	NES: * * * - * * *
Suedo code	* * *
ine nsP=1;	* * * *
ing nst= 1/2 +1 + + + +	* * * *
for (ind :1; 1 <1 >) 4	nst=3 $nsp=1$
for lind j=1; j<=ns1; j+1)<	hs+: 2
System.out. point ("*");	
3) nsp: 3
108 (int K=13 K<= nsp; K+1) (
	ns+= 1
System.out. point (" ");	2
for Gind 1:1; 1<2ns1; 21+)4	y nsp = 5
	nste
System.out. point ("*");	3 3<:5
if (?<= 7/2) <	1 - nsp:3
nst; ase = nse +2;	- 12n c
	4 4<=5 > nS+ = 1
elsel nst ++;	, 12° €
hsP= nsP-2;	
System.out.pointln();	3
	6-yezit
	, , ,



	N:51	*
ind nst = 1; } Hink for 154 800	_ *	_ * * * *
108 (ind i=10 ic=N; it) (no. of soms -	* * *	_ * * *
	+ + + +	* L:+2M
System.out. point (" ");	s & 4	NIP: 2
64 (14 K=T; K<= W24; K+1) (1	A ns+: 3
	1<:5) nsp: 1
18 (i <= 1/2) (nsp;	+	7 10011
nst = nst +2° / Act for next line		nst:5
else { nsp++; nst: nst-2;	2 < > 5	J MP = D
ns#: ns# -23		
3 Systemout. Point (n(1)	2.42	nst :3
	3 34:5	- nsP=1
	4	