START WRITING FROM HERE

```
5. Exercises on Nested-Loops
    Square Pattern (nested - Loop)
import java.util. Scanner;
         class
 Public
                 Square Pattern &
       Public
              static void main (String argues) {
              Scanner scan = new Scanner (System.in);
              System. out. Print ("Enter the sizes");
              int size = scan. next Int ();
              Scan. Close ();
                  (int YOW =1; YOW <= size; YOW ++ ) {
                  for (int (01 = 1; col <= size; col ++) {
                        System. out.print ("#");
                   3
                   System.out. println U;
              3
       3
?
             61 Le :
```

```
5.2 Checker Pattern (Nested - 100p)
import java.util. scanner;
public class checker Pattern &
     Public static void main (string args []) 1
          Stanner stan = new scanner (system in);
          System. out print ("Enter the ace: ");
          int size = scan next Int ();
           Scan. close ();
           for (int you = 1; You 4= Size; You ++ ) {
            1+ (YOW % 2 == 10) {
             System out print (" ");
                 3
                for (int col=1; col L= sill; col++)}
                    System. out. print (" # ");
                 3
                System. out. println ();
           3
     }
3
o utput :
ENHY the size: 7
                        3/16
```

}

```
5.3
      Time Table (nested- 100p)
import java. util. Scanner;
public class Time Table }
     Public Static void main (String args (7) ?
         Scanner scan = new scanner (System in);
          Systemiout print ("Entry the sie" );
              Size = scan. nex+Int ();
           Scan. close ();
           System . out . print (" + It 1 1");
          for (int i = 11; 1 < 3 512 1) 1+1) {
               System. out print (i + "It");
           3
           System. out. printin();
           for (int ; =1; i <= six; i++) {
                 System. out. print (" - - - ");
            Syxm. our . print In ();
           for (int you =1; YOU <= Size : YOW ++) {
                  Sylum. out. print (row + " It | It ");
                 for (int col=1; col <= siz; col ++) [
                       System. out . print (col * row + "It");
                  Sysum. out. printh ();
            3
      3
```

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```
Enter
        the size:
                  3
                       4
         1
              2
                   3
                        4
                             5
                                  6
                                        8
          2
              4
                         8
                             10
3
          3
              6
                        12
                             15
                                  19
                                      21
                                           31
              7
                                      2 7
                   12
                        16
                              20
                                  24
                                            40 45
         S
              10
                   11
                                  30
                                       35
                        20
                              25
                                            47 54
                                                    60
                   18
                                       42
                         24
                             30
                                   36
              12
                                            56 63 70
                             35
         7
              14
                        24
  7
                                                FL
                                   47
                                        56
                                            64
         9
                             40
  8
                  24
                        32
                                            72 81
                                                     90
                                   54 63
 9
                        36
                              46
                  27
                                 60 70 10 90 100
         10 20
                              56
 10
                  30
                        40
```

import java.util. Scanner;

public class TriangularPatkrn {

public static void main (String args[]) {

Scanner scan = new Scanner (System.in);

System.out.print ("Enur the size: ");

int size = san, next[nt();

Scan, close();

```
for (int row = 1; row z = size; row ++) {
    for (Int col =1; col L= + row; col++) {
         SYJHM. OUT. Print ("#");
     Syskm. out. println ();
   1 Ist Bit - (a)
for (int row =1; row L = size; row++) {
     for (int (01 = size; col >= 10w, col -- ) {
          Systm.out.print ("#");
     3
     System. out println ();
   1) India Bir 12 (P) 10 or 10 3
for (int row =1 ; row L= Sice; row ++){
   for (into col = 1; col <= size; col++) {
       if (row & size of the cold = (size-row)){
          System. Out. print (" Har); rangellate
       3
       eise &
           Sysum. out. print ("#");
    Filling the war was the top
   Princip induces in the second windows
   System. out. printin();
   11 12 th Bit - (0)
```

```
for (int YOW = 1; YOW &= SILL; 1011++) {
    for (int (01 = 1; (01 k = sill; (01++) }
          if (100>1+4 612100) {
                Syskm.out.print (" ");
          3 else {
           Syskm.out.print ("# ");
     3
     Systm. out .println ();
    M Lag Blother - Jack Day - and the rest and it was
         great and the second contract that the
 Output:
              TO HALLO TEACHTRE
 Enky th sine : 8
                         # # # 1 - INO ME 16 5
                         TO de the star of the
                   14 (P): 1 - 7 COCK : 1 - 57 3 40; ) OF
    (c)
                      (d)
```

```
Box Pattern (nested - 100p) and
import java. util. Scanneri
5.5
public dans Box Pathin &
    public static void main (String args []) {
          Scammer scan = new Scanner ( System. in);
          System. out. print ("Enter the size: ");
          int six = Scan. next[nf();
          Scan. close ();
                             Catholice 12 Dintle Of
          11 A bit
          for (int YOW =1; YOW <= SILL; YOW ++){
             for (int col= 1) col L= siu; col++) {
                 if (01 == 1 |1 col== STX |1 YOW == 1 |1 YOW == STX ) {
                     Syskm.out. print ("# ");
                 3 else {
                                          ");
                     Syskm. out. print ("
                                          ENKY HA SIL
                  3
              System.out-pringly (); = = =
          System. out. printly ();
          11 Bir B
          for (Int row = 1; rowk = sill; row ++) {
              tor (int col = 1; col <= sile ; col++) # = = = = = = = =
                 if ( row = = 1 11 row == suc 11 row == 0 1) }
                      System our prin + ("# "); F & F & F
                       enc { + B I I I I I
                     System. out. print (" "); #
                       4 4 4 4 4 4 4 4
                  3
              System. out. println ();
```

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3

```
11 C Bit
   for (int row = 1; row L= siv; row++) }
       for (int col = 1; col <= s[u; col ++){2}
    if (100 == 1) 100 = = six 11 YOU+ col == 9) {
                Syskm. out. print ("# ");
            felse {
             Syskm. out. print (" ");
日 此 四 財 孫 日 五 出
        System. Out. println ();
    3
                     简件标准设行符号 舞舞舞舞舞舞员
    11 D Bit
    for (int You = 1; You = siz; You++){
        for (int col = 1; col 4= 512; (col++) {
             1+ ( YOU == 1 11 YOW == SIX 11 YOW = = COI 11 YOW + COI == 9) }
                  Syskm out. Print ("# "); HHHHHHHHHH
             3 else s
                  System. out . priht (" ");
             3
         System.out.pyinth();
    3
                               WEST JEVEL WHIL SOUNDER;
    11 EBIL
       (int row = 1; 100 x = six; row+) {
       for ( The col = 1; col = siu / col ++ ) {
            If (YOU = = 1 | YOU = = SILL | COI == 1 | (COI = = STLL | YOU = = COI
                11 YOW+ COI = = 9) 3
                 Sysum out. print ("# ");
            3 else }
                Syskm. out. print (" ");
            z
                          9/16
       Sylum. o.at. printly();
```

```
output:
Encer the site : 8
                                 =
         H
             计计算计计计计
                 (6)
    (0)
* # # # # # # #
            开样井井 井井井
             * # # # # # # #
    (0)
                . (0)
```

```
import java. util. Scanner;

public class HillPattern {

public static void main (String aras []) {

Scanner scan = new Scanner (System.in);

System.out.print ("Enter ne rows: ");

int size = Scan nextInt();

Scan. close ();
```

ROLL NUMBER:

```
11 A BIX
for (int Yow = 1; You (= size) You++){
    for (int col = 1; col <= (slu# 2); with) }
         it ((100 + col ) = six + 1) 4+ ( YOW >= (01 - six +1)){
               System. out. print ("# ");
          3 else f
               System. out. print (""");" ""
          }
      3
      System. out. println ();
 3
   B Bit
 //
for (int YOU =1; YOW (= Size; YOW ++) {
     for (int (ol = 1) col = (size + 2); col ++) {
          if (col >= YOW AF col (= (size 2)-YOW)) {
                System. out-pring ("# ");
          3 else { 1) & 1, 200 = 2 (1000 coll) of
                Sysum. out . print (" : "); Here
           }
      Syskm. out. Printh ();
 ζ
 ||
    C Bit
      (int 100 = 1; 100 L = size; 100++) }
      for (int col=1; col <= (six+2); col++){
            if ((100 + col > = Six + 1) 4f (100 > = col-six+1)) {
               Sysum . Out. print (" # ");
              else {
                Sylkm.out. print (" ");
            ζ
                            11/16
      System.out println();
 3
```

```
for (int row = 2; row < = siu; row ++) {
     for (int col = 1; col < = (siu * 1); col ++) {
           if (col>= YON ff col <= (Size = 2) - YOW)) {
                 System. out. print ("# ");
           3
             else }
                  System. out. print (" ");
           3
      Syskm. our. println ();
ζ
11 D BIT
for (int row = 0; row 2 = size; row++) {
     System. out.print ("# ");
     for (int col = 1; col <= (six * 2); col++) {
          if ((row + (01 ) = siu+1) Af (rows = (0) - siu+1)) {
               Systim out oprints (120 19) ; cp2
            else {
               System. out . print ("#");
           3
                                   Wining . Drinth ();
     3
     System. out. println ();
 3
 for Cint row = 2; row <= 512+13; row ++) {
     Systm. out , print ("# ");
     for ( int col = 1) col = (sint 2) ; col++) {
            if (col >= row de col ~= ((sixe2)-row)){
                 System.out.print (" ");
            } else {
                  System. out . print ("# ");
            3
                             12/16
      8 w tem. out . printly ();
```

```
Output:
ENKY th YOWS : 6
          #
        # # #
      # # # # #
          ####
                                   # #
  #########
                                       #
          (a)
                                       (b)
                         # #
                           4
                          # #
                          # # #
          ###
          (4)
                                 # #
                                         # # # #
                                  # # # # # # #
                                      (d)
5.7 Number Pathern (nested-loop)
import java.util. Scanner;
Public class Number Pathern {
     public static void main (string args []) {
          Scanner scan = new Scanner (
                                                    )
          System. out. print ("Enter the size: ");
          int siu = scan, next Int ();
```

Stan. close ();

ROLL NUMBER:

3

```
11 A Bit
for (int row =1; YOW L = STU; YOW++) }
                 for (int col = 1; col <= $0 w; col++) {
                                    Systm. out. print (col + " ");
                   System, out printin();
    3
   11 B bit
   for (int row = 1; row <= sire; row ++){
                    for (int col = 1; col < = size; col++) {
                if (col>= row){
                if (rowal) {
                                                                           Systm. out. print (col-tout) + " ");
                                                                3 else & man harman harman
                                                                                System. our . print (col + " ")
                                                                  3
                     3 else {
                        System.out.print (" ");
               H - A A G
              He is a state of the state of t
                        System. out. println();
     }
   11 C Bir
   for (int row = 1; row <= size; row++){
                       for (int col = size; col >= 1; col -- ) {
                                               if ((0) <= row) {
          Clegre ericle System. Our . print (col + " ");
                                                3 elses
                                                                  System out print (" ");
                                                  z
                                                                                                   14/16
                           System, out. printin ();
```

```
11 D Bit
   for (int YOW = 1; YOW <= STU; YOW++) {
        for (int col = size; col >= row; col --) {
              System. Out.print (col-row+1+ " ");
         3
        Systm. out. println();
    3
 3
3
  Output :
  FAMY the size: 9
                   12345678
                         8 4 5 6 7
  1 2
   123
                         1 2345
  1234
                            1 2 3 4
  12345
                              123
  1 2 3 4 5 6
                              # 12
  1234567
  12345678
                         (6)
      (4)
                    8765 4321
            1
                    7654321
           2 1
                    654321
                    5 4 3 2 1
                    4321
   7 6 5 4 3 2 1
                    3 2 1
 87654321
                     2 1
      (4)
                         (d)
```