

✓ Row and column in nested loop

i = rows j = columns

```
for i in range(5):
    for j in range(5):
        print('*',end='')
    print()
```

```
*****
*****
*****
*****
*****
```

```
for i in range(4):
    for j in range(5):
        print('*',end='')
    print()
```

```
⇒ *****
*****
*****
*****
```

```
for i in range(5):
    for j in range(4):
        print('*',end='')
    print()
```

```
****
****
****
****
****
```

✓ 1: WAP that will print a pattern based on the input integer n. Please see the sample input output.

#wrong

```
n = int(input())
```

```
for i in range(1, n + 1):
    print(i,end='')
    for j in range(1, n + 1):
        print(j,end='')
        for k in range(1, n + 1):
            print(k,end='')
```

```
3
111232123312321123212331233112321233123
```

```
n = int(input("Enter the value of n: ")) # n = 3
```

```
for i in range(1, n + 1):      # for i in range(1,4):      i =
    for j in range(1, n + 1):    # for j in range(1,4):      j = 1 2 3
        print(j, end="")
    print()
```

```
Enter the value of n: 3
123
123
123
```

- ✓ 2: WAP that will print a pattern based on the input integer n. Please see the sample input output.

```
n = int(input("Enter the value of n: ")) # n = 3
k = n # k = n = 3 => 4 => 5
l = 1 # l = 1 => 2 => 3

for i in range(1, n + 1): # for i in range(1,4): i = 3
    for j in range(1, k + 1): # for j in range(1,k+1): range(3,6) j = 3 4 5
        print(j, end="") # print(j,end='')
    print()
    l+=1
    k+=1

Enter the value of n: 3
123
234
345
```

- ✓ 3:WAP that will print a pattern based on the input integer n. Please see the sample input output.

```
n = int(input("Enter the value of n: ")) # n =
k = 2
l = 1

for i in range(1, n + 1):
    for j in range(1, k):
        print(j, end="")
    print()
    l+=1
    k+=2

Enter the value of n: 3
1
23
345
```

```
n = int(input("Enter the value of n: ")) # n = 3

for i in range(1, n + 1): # i = 3
    for j in range(i,i+i): # for j in range(i,2i): range(3,6) j = 3 4 5
        print(j, end="")
    print()

Enter the value of n: 3
1
23
345
```

- ✓ 4:WAP that will print a pattern based on the input integer n. Please see the sample input output.

```
n = int(input("Enter the value of n: "))
k = 1
l = 1
```

```
for i in range(1, n + 1):
    for j in range(1, k):
        k+=1
        print(j, end="")
```

```
        # while k == 4:
        #     break
    print()
    l+=1
```

```
n = int(input("Enter the value of n: "))
```

```
# Outer loop to iterate over rows
for i in range(1, n + 1):
    # Inner loop to print numbers for each row
    for j in range(i):
        print(i, end="")
    print() # Move to the next line after printing each row
```

```
Enter the value of n: 3
1
22
333
```

```
n = int(input("Enter the value of n: "))
```

```
# Outer loop to iterate over rows
for i in range(1, n + 1):
    # Print spaces
    print("_" * (n - i), end="")

    # Inner loop to print numbers for each row
    for j in range(i):
        print(i, end="")
    print() # Move to the next line after printing each row
```

```
Enter the value of n: 3
_1
_22
333
```

✓ 5:WAP that will print a pattern based on the input integer n. Please see the sample input output.

```
n = int(input("Enter the value of n: "))
```

```
for i in range(3)
```

```
n = int(input("Enter the value of n: "))
k = n-1
l = n
```

```
for i in range(1, n + 1):
    for j in range(1, k,-1):          # for j in range(3,2,-1)
        print(j, end="")
    print()
    k-=1
```

```
Enter the value of n: 4
4
43
432
4321
```

```

n = int(input("Enter the value of n: "))

for i in range(n):
    for j in range(n, (n-i-1), -1):        # for j in range(3,2,-1)
        print(j, end="")
    print()

    Enter the value of n: 4
    4
    43
    432
    4321

for i in range(3,1,-1):
    print(i)

    3
    2

```

6: WAP that will print a pattern based on the input integer n. Please see the sample input output.

```

n = int(input("Enter the value of n: "))
k = 2
l = 1

for i in range(1, n + 1):
    for j in range(1, k):
        print(j, end="")
    print()
    k+=1

    Enter the value of n: 3
    1
    12
    123

```

7: WAP that will print a pattern based on the input integer n. Please see the sample input output.

```

n = int(input("Enter the value of n: "))
for i in range(n):
    for j in range(n):
        print('*', end= ' ')
    print()

    Enter the value of n: 2
    * *
    * *

```

8: WAP that will print a pattern based on the input integer n. Please see the sample input output.

```

n = int(input("Enter the value of n: "))
for i in range(n):
    for j in range(0,n-i):
        print('*', end= ' ')
    print()

    Enter the value of n: 5
    * * * * *
    * * * *
    * * *
    * *
    *

```

*

9: WAP that will print a pattern based on the input integer n. Please see the sample input output.

```
n = int(input("Enter the value of n: "))
k = 0
l = n
for i in range(n):
    for j in range(k,l+1):
        if j%2 == 0:
            print(1,end=' ')
        else:
            print(0,end=' ')
    k+=1
    l+=1
    print()
```

```
Enter the value of n: 5
1 0 1 0 1 0
0 1 0 1 0 1
1 0 1 0 1 0
0 1 0 1 0 1
1 0 1 0 1 0
```

10: WAP that will print a pattern based on the input integer n. Please see the sample input output.

```
n = int(input("Enter the value of n: "))    # n = 5
for i in range(1,n+1):                    # for i in range(1, 6):
    print(' '*(n-i),end='')
    for j in range(i):
        print('*',end='')
    print()
```

#output:

```
Enter the value of n: 5
*
**
***
****
*****
```

```
n = int(input("Enter the value of n: "))    # n = 5
for i in range(1,n+1):                    # for i in range(1, 6):
    print(' '*(n-i),end='')
    for j in range(i):
        print('*',end=' ')
    print()
```

```
Enter the value of n: 5
*
* *
* * *
* * * *
* * * * *
```

```

n = int(input("Enter the value of n: "))

# Outer loop to iterate over rows
for i in range(1, n + 1):
    # Print spaces
    print(" " * (n - i), end="")

    # Inner loop to print numbers for each row
    for j in range(i):
        print(i, end="")
    print() # Move to the next line after printing each row

Enter the value of n: 5
1
22
333
4444
55555

```

11:WAP that will print a pattern based on the input integer n. Please see the sample input output.

```

n = int(input("Enter the value of n: "))    # n = 5
k = '*'
l = 0
for i in range(1,n+1):
    print(' '*(n-i),end='')
    for j in range(i):
        print('*',end='')
    print(k*l)
    l+=1
    print()

# for i in range(1, 6):
#     #print(' '*(n-i),end='')    --> print(' '*(5-3),end='')
#     for j in range(i):
#         # print('*',end='')
#     #print(k*l)
#     #l +=1
#     print()

```

#output:

```

'''
*
***
*****

...

Enter the value of n: 5
*
***
*****
*****
*****
*****
'''

```

12:WAP that will print a pattern based on the input integer n. Please see the sample input output.

```

n = int(input("Enter the value of n: "))    # n = 5
k = '*'
l = 0
for i in range(1,n+1):
    print(' '*(n-i),end='')
    for j in range(i):
        print('*',end='')
    print(k*l)
    l+=1
    print()
p = n-1    # p = 2
l = n-2    # l = 1
for i in range(1,n+1):
    print(' '*(n-p),end='')
    for j in range(p):
        print('*',end='')
    print(k*l)
    l-=1
    p-=1
    print()

```

```

Enter the value of n: 3
*

***

*****

***

*

```

```

num=int(input("Enter an odd number: "))    # num = 3
n1=num//2+1    # n1 = 2
n2=num-n1    # n2 = 3-2 = 1
n3=n2    # n3 = 1
# print(n1)
for i in range(1,n1+1):
    for j in range(n1-i):
        print("_",end="")
    for k in range(1,i*2):
        print("*",end="")
    print()
for i in range(1,n2+1):
    for j in range(i):
        print("_",end="")
    for k in range(n3*2):
        print("*",end="")
    print()
n3-=1

```

```

Enter an odd number: 3
*
***
**
_

```

```

num=int(input("Enter an odd number: "))    # num = 3
n1=num//2+1    # n1 = 2
n2=num//2    # n2 = 1
n3=n2*2    # n3 = 2
for i in range(1,n1+1):
    for j in range(n1-i):
        print("_",end="")
    for k in range(1,i*2):
        print("*",end="")
    print()
for i in range(1,n2+1):
    for j in range(i):
        print("_",end="")
    for k in range(1,n3):
        print("*",end="")
    print()
n3-=2

```

```

Enter an odd number: 3
_
*
***
_
*
_

```

problem

- ✓ 13:WAP that will print a pattern based on the input integer n. Please see the sample input output.

```

# 1 _ _ _ _ 1
# 1 2 _ _ 2 1
# 1 2 3 _ 3 2 1
# 1 2 3 4 3 2 1

```

Solve

```

n=int(input("Enter the terms:"))
for i in range(1,n+1):
    for j in range(1,i+1):
        print(j,end="")
    for k in range(n-i):
        print("_",end="")
    for l in range(n-i-1):
        print(" ", end="")
    for m in range(i,0,-1):
        if m==n:
            continue
        else:
            print(m, end="")
    print()

```

```

Enter the terms:4
1____1
12__21
123_321
1234321

```

```

n = int(input())
for i in range(1,n+1):
    for j in range(1,i+1):
        print(j,end="")
    for j in range(i,n):
        print(' ',end='')
    for j in range(i,n):
        print(' ',end='')
    for j in range(i,0,-1):
        if j==n:
            continue
        else:
            print(j, end="")
    print()

```

```

4
1      1
12     21
123    321
1234321

```



```
n = int(input("Enter the value of n: "))
```

```
for i in range(n):
    for j in range(n*2):
        print(j,end='')
    print()
```

```
l = 2
p = n-1
for i in range(1,n+1):
    print(' '*n,end='')
    for j in range(i):
        print(j,end='')
    l+=1
    p-=1
    print()
```

```
Enter the value of n: 4
01234567
01234567
01234567
01234567
0
01
012
0123
```

```
n = int(input("Enter the value of n: "))
```

```
for i in range(1,n+1):
    for j in range(1,n+1):
        print(j,end='')
    print()
```

```
n = int(input("Enter the value of n: "))
```

```
for i in range(1, n + 1):
    for j in range(1, 2 * n):
        if j <= i:
            print(j, end='')
        else:
            print('_', end='')
    print()
```

```
Enter the value of n: 4
1_____
12_____
123_____
1234_____
```

```
n = int(input("Enter the value of n: "))
```

```
for i in range(1, n + 1):
    # Print numbers from 1 to i
    for j in range(1, i + 1):
        print(j, end=' ')
    # Print underscores for remaining spaces
    for k in range(1, 2 * (n - i) + 1):
        print('_', end='')
    # Print numbers from i down to 1
    for l in range(i, 0, -1):
        print(l, end=' ')
    print()
```

```
Enter the value of n: 4
1 _ _ _ _ 1
1 2 _ _ _ 2 1
1 2 3 _ _ 3 2 1
1 2 3 4 4 3 2 1
```

- ✓ 14: WAP that will print a pattern based on the input integer n. Please see the sample input output.

```
n = int(input("Enter the value of n: "))
k = 0
l = n
for i in range(n):
    for j in range(n):
        if i%2 == 0 and j%(n-1) == 0:
            print(1,end=' ')
        else:
            print(0,end=' ')
    print()

    Enter the value of n: 5
    1 0 0 0 1
    0 0 0 0 0
    1 0 0 0 1
    0 0 0 0 0
    1 0 0 0 1
```

```
n = int(input("Enter the value of n: "))

for i in range(n):
    for j in range(n):
        if i%2 == 0 or j%(n-1) == 0:
            print('*',end=' ')
        else:
            print(' ',end=' ')
    print()

    Enter the value of n: 5
    * * * * *
    *       *
    * * * * *
    *       *
    * * * * *
```

output not same

- ✓ 15: WAP that will print a pattern based on the input odd integer n. Please see the sample input output.

```
n = int(input("Enter the value of n: "))
k = n
for i in range(n+1):
    for j in range(n):
        if i == 0 or i == n or j == k :
            print('Z',end=' ')
        else:
            print(' ',end=' ')
    k-=1
    print()

    Enter the value of n: 5
    Z Z Z Z Z
      Z
    Z
  Z
Z
Z Z Z Z Z
```

- ✓ 16: WAP that will print a pattern based on the input odd integer n. Please see the sample input output.

```
#j=0 1 2 3 4
# * _ _ _ *      i = 0
# _ * _ _ _      i = 1
# _ _ * _ _      i = 2
# _ _ * _ _      i = 3
# _ _ * _ _      i = 4
```

Problem

```
n = int(input("Enter the value of n: "))
```

```
for i in range(n):
    for j in range(n):
        if (i == 0 and j == 0) or (i == 0 and j == (n-1)) or (j == 0 and i == (n-1)) or (i == (n-1) and j == (n-1)) or (i == j) :
            print('*',end='')
        else:
            print(' ',end='')
    print()
```

```
Enter the value of n: 5
*      *
      *
    *
  *
*      *
```

```
n = int(input("Enter the value of n: "))
```

```
# n = 5
```

```
# Outer loop to iterate over rows
```

```
for i in range(1, n + 1):
```

```
# Inner loop to iterate over columns
```

```
for j in range(1, n + 1):
```

```
    if j == i or j == n - i + 1:
```

```
        print("*", end="")
```

```
    else:
```

```
        print(" ", end="")
```

```
print()
```

```
# for i in range(1,n+1):
```

```
#for j in range(1,n+1):
```

```
#if j == i or j == n - i + 1:
```

```
# for i in range(1,n+1):
```

```
#for j in range(1,n+1):
```

```
#if j == i or j == n - i + 1:
```

```
# for i in range(1,6)
```

```
# for j in range(1,6)
```

```
# output:
```

```
#
```

```
Enter the value of n: 5
* *
* *
 *
* *
* *
```

```
n = int(input("Enter the value of n: "))
```

```
# n = 5
```

```
# Outer loop to iterate over rows
```

```
for i in range(n):
```

```
# Inner loop to iterate over columns
```

```
for j in range(n):
```

```
    if j == i or j == n - i + 1:
```

```
        print("*", end="")
```

```
    else:
```

```
        print(" ", end="")
```

```
print()
```

```
# for i in range(1,n+1):
```

```
#for j in range(1,n+1):
```

```
#if j == i or j == n - i + 1:
```

```
n = int(input("Enter the value of n: "))
```

```
for i in range(n):
    for j in range(n):
        if (i == 0 and j == 0 ) or (i == 0 and j == (n-1) ) or ( j == 0 and i == (n-1) ) or (i == (n-1) and j == (n-1)) or (i == j) or (j == (i+1)):
            print('*',end='')
        else:
            print(' ',end='')
    print()
```

```
Enter the value of n: 5
```

```
* * *
 *  *
  *  *
   *
*     *
```

Problem

Best way to solve any pattern problem

- ✓ 17: WAP that will print a pattern based on the input odd integer n. Please see the sample input output.

#j=1	2	3	4	5	6	7	8	9	
#	-	-	-	\$	-	-	-	-	i = 1
#	-	-	-	\$	\$	\$	-	-	i = 2
#	-	-	\$	-	\$	-	\$	-	i = 3
#	-	\$	-	-	\$	-	-	\$	i = 4
#	\$	\$	\$	\$	\$	\$	\$	\$	i = 5
#	-	\$	-	-	\$	-	-	\$	i = 6
#	-	-	\$	-	\$	-	\$	-	i = 7
#	-	-	-	\$	\$	\$	-	-	i = 8
#	-	-	-	-	\$	-	-	-	i = 9

```

n = input("Enter number of rows:")    # n = 7
n = int(n)
left_line=int(n/2)                    # left_line = 3
right_line=int(n/2)                   # right_line = 3
middle_line=int(n/2)                  # middle_line = 3

for i in range(n):
    for j in range(n):
        if i == middle_line:
            print("$", end=" ")
        elif j == left_line or j == right_line or j == middle_line:
            print("$", end=" ")
        else:
            print("_", end=" ")

    print("\n")

#updating the lines
if i == middle_line:
    left_line = n-1
    right_line = 0
    left_line=left_line - 1
    right_line=right_line + 1

# if i == middle_line
# left_line = n-1
# right_line = 0
# left_line = left_line - 1
# right_line = right_line + 1

```

output:

```

#
#
#
#
#
#
#
#

```

```

Enter number of rows:7
_ _ _ $ _ _ _
_ _ $ $ $ _ _
_ $ _ $ _ $ _
$ $ $ $ $ $ $
_ $ _ $ _ $ _
_ _ $ $ $ _ _
_ _ _ $ _ _ _

```

```

n = int(input("Enter the value of n: "))

```

```

for i in range(1,n+1):
    for j in range(1,n+1):
        if j == (n//2)+1 or i == (n//2)+1:
            print('$ ',end='')
        elif i < n//2+1 and (j == (n//2)-i+2 or j == n//2+i):
            print('$ ',end='')
        elif i > n//2+1 and (j == i - (n//2) or j == n//2+1):
            print('$ ',end='')
        else:
            print('_ ',end='')
    print()

```

```

Enter the value of n: 9
_ _ _ _ $ _ _ _ _
_ _ _ $ $ $ _ _ _
_ _ $ _ $ _ $ _ _

```

```

- $ - $ - $ -
$ $ $ $ $ $ $ $
- $ - $ - - -
- - $ - $ - - -
- - - $ $ - - -
- - - - $ - - -

```

```

n = 9
x = int(9/2)-1
y = int(9/2)

for i in range(n):
    for j in range(n):
        if i == y or j == y:
            print('$ ',end='')
        elif i+1<y and j<y:
            print('_ *(j-1),end='')
            print('$ ',end='')
        else:
            print('_ ',end='')
    print()

```

```

$ $ _ $ _ - $ $ _ - - -
$ $ _ $ _ - $ $ _ - - -
$ $ _ $ _ - $ $ _ - - -
- - - - $ - - - -
$ $ $ $ $ $ $ $ $
- - - - $ - - - -
- - - - $ - - - -
- - - - $ - - - -
- - - - $ - - - -

```

```

n = 5

for i in range(n):

    for j in range(i+1):
        print('_ *(n-i),end='')
        print('$ ',end='')
    print()

```

```

- - - - - $
- - - - $ - - - - $
- - - $ - - - $ - - - $
- - $ - - $ - - $ - - $
- $ - $ - $ - $ - $

```

```

n = 9

for i in range(n):
    for j in range(n):
        print('_ ' * (n//2 - j), end='')
        print('$ '*1, end='')
        print('_ ' * (n//2-j))

```

```

n = 5

for i in range(n):

    print('_ ' * (n - i - 1), end='')
    print('$ ', end='')
    print('_ ' * i)

```

```

- - - $ -
- - $ - -
- $ - - -

```

```

n = int(input("Enter the value of n: "))
k = int(n/2)

for i in range(1,n+1):
    for j in range(1,n+1):
        if ( (int(n/2)+1) == i and j in range(1,n+1)) or ( (int(n/2)+1) == j and i in range(1,n+1)) or ((j == int(n/2) or j == int(n/2)+1) and i
            print("* ",end='')
        else:
            print(' ',end='')
    print()

```

Enter the value of n: 9

```

*
* *
*
*
* * * * *
*
*
* *
*

```

```

n = int(input("Enter the value of n: "))

```

```

for i in range(n):
    for j in range(2 * n - 1):
        if j == n - i - 1 or j == n + i - 1:
            print("$", end=' ')
        elif j > n - i - 1 and j < n + i - 1:
            print("$", end=' ')
        else:
            print("_", end=' ')
    print()

```

Enter the value of n: 9

```

_ _ _ _ _ $ _ _ _ _ _
_ _ _ _ _ $ $ $ _ _ _ _ _
_ _ _ _ _ $ $ $ $ $ _ _ _ _ _
_ _ _ _ _ $ $ $ $ $ $ _ _ _ _ _
_ _ _ _ _ $ $ $ $ $ $ $ _ _ _ _ _
_ _ _ $ $ $ $ $ $ $ $ $ _ _ _ _ _
_ _ $ $ $ $ $ $ $ $ $ $ $ _ _ _ _ _
_ $ $ $ $ $ $ $ $ $ $ $ $ _ _ _ _ _
$ $ $ $ $ $ $ $ $ $ $ $ $ _ _ _ _ _

```

```

n = int(input("Enter the value of n: "))

```

```

for i in range(1,n+1):
    for j in range(1,n+1):
        if j == (n//2)+1 or i == (n//2)+1:
            print('$ ',end='')
        elif i < n//2+1 and (j == (n//2)-i+2 or j == n//2+i):
            print('$ ',end='')
        elif i > n//2+1 and (j == i - (n//2) or j == (3*n//2+1)-i):
            print('$ ',end='')
        else:
            print(' ',end='')
    print()

```

Enter the value of n: 9

```

$
$ $ $
$ $ $
$ $ $ $ $
$ $ $
$ $ $
$ $ $
$

```

```

n = int(input("Enter the value of n: "))

```

```

for i in range(1,n+1):
    for j in range(1,n+1):
        if i > n//2+1 and j == (3*n//2+1)-i:
            print(j)

```

```

Enter the value of n: 9
8
7
6
5

print((3*n//2+1)-6)      # (27//2+1 - 6) = 14-6 = 8

8

```

```

#j=1 2 3 4 5 6 7 8 9
# _ _ _ _ $ _ _ _ _ i = 1
# _ _ _ $ $ _ _ _ _ i = 2
# _ _ $ _ $ _ _ _ _ i = 3
# _ $ _ _ $ _ _ _ _ i = 4
# $ $ $ $ $ $ $ $ $ i = 5
# _ $ _ _ $ _ _ _ _ i = 6
# _ _ $ _ $ _ _ _ _ i = 7
# _ _ _ $ $ _ _ _ _ i = 8
# _ _ _ _ $ _ _ _ _ i = 9

```

```

x = int(input("Enter the value of x: "))
n = int(x//2+1)
for i in range(n-1):
    for j in range(i,n-1):
        print('_',end='')
    for j in range(i):
        if j == 0 or i == n-1:
            print('*',end='')
        else:
            print('_',end='')
    for j in range(i+1):
        if i==n or j==i or j==0:
            print('*',end='')
        else:
            print('_',end='')
    for j in range(i,n-1):
        print('_',end='')
    print()

```

```

for i in range(n):
    for j in range(i):
        print('_',end='')
    for j in range(i,n-1):
        if i == j or i == 0:
            print('*',end='')
        else:
            print('_',end='')
    for j in range(i,n):
        if i==0 or i == j :
            print('*',end='')
        else:
            print('_',end='')
    for j in range(i):
        print('_',end='')
    print()

```

```

Enter the value of x: 9
  *
 ***
*  *  *
*  *  *
*****
  *  *
 *  *
  **
  *

```


✓ Extra

```
a = 7
b = 7
c = 7
for i in range(1,a+1):
    for j in range(1,b+1):
        if (i == 3 or j == 3 or i == c-2 or j == c-2) or (i == 1 or i == 3 or i == 2 or i == c or i == c-1) and (j == 1 or j == 3 or j == 2 or j =
            print('* ',end='')
        else:
            print(' ',end='')
    print('\n')
```

```
* * *   * * *
* * *   * * *
* * * * * * *
      *   *
* * * * * * *
* * *   * * *
* * *   * * *
```

```
ક = 0
x = 0
y = 7
print("\n")
for k in range(1, y+1):
    for x in range(1, y+1):
        if k == 3 or x == 3 or k == y-2 or x == y-2 or (k == 1 or k == 3 or k == 2 or k == y or k == y-1) and (x == 1 or x == 3 or x
            print("* ", end="")
        else:
            print(" ", end="")
    print("\n")
```

```
* * *   * * *
* * *   * * *
* * * * * * *
      *   *
* * * * * * *
* * *   * * *
* * *   * * *
```

✓ Writing my name

LLLL

```

for i in range(5):
    for j in range(5):
        if j == 0 or i == 4:
            print('L ',end='')
    print()

    L
    L
    L
    L
    L L L L L

```

AAAA

```

for i in range(4):
    for j in range(7):
        if (i == 0 and j == 3) or (i == 1 and (j == 2 or j == 4)) or (i == 2 and (j == 1 or j == 2 or j == 3 or j == 4 or j == 5)) or (i == 3 and j == 6):
            print('A',end=' ')
        else:
            print(' ',end=' ')
    print()

    A
    A A
    A A A A A
    A A

```

```

for i in range(4):
    for j in range(7):
        if (i == 0 and j == 3) or (i == 1 and (j == 2 or j == 4)) or (i == 2 and (j == 1 or j == 2 or j == 3 or j == 4 or j == 5)) or (i == 3 and j == 6):
            print('A ',end=' ')
        else:
            print('_',end=' ')
    print()

    _ _ _ A _ _ _
    _ _ A _ A _ _
    _ A A A A A _
    A _ _ _ _ A

```

```

for i in range(4):
    for j in range(7):
        if (i == 0 and j == 3) or (i == 1 and j in (2, 4)) or (i == 2 and j in (1, 2, 3, 4, 5)) or (i == 3 and j in (0, 6)):
            print('A', end=' ')
        else:
            print('_', end=' ')
    print()

    _ _ _ A _ _ _
    _ _ A _ A _ _
    _ A A A A A _
    A _ _ _ _ A

```

BBBB

```

for i in range(5):
    for j in range(4):
        if (i == 0 and (j == 0 or j == 1 or j == 2 )) or (i == 1 and (j == 0 or j == 3)) or (i == 2 and (j == 0 or j == 2 )) or (i == 3 and (j == 1 or j == 3)):
            print('B',end=' ')
        else:
            print(' ',end=' ')
    print()

    B B B
    B B
    B B
    B B
    B B B

```

```
H      H
```

```
HHHH
```

```
H      H
```

```
for i in range(5):
    for j in range(5):
        if (i == 0 and (j == 0 or j == 4)) or (i == 1 and (j == 0 or j == 4)) or (i == 2 and (j == 0 or j == 1 or j == 2 or j == 3 or j == 4))
            print('H',end=' ')
        else:
            print(' ',end=' ')
    print()

    H      H
    H      H
    H H H H H
    H      H
    H      H
```

```
iii
```

```
for i in range(5):
    for j in range(5):
        if (i == 0 and (j == 0 or j == 1 or j == 2 or j == 3 or j == 4)) or (i == 1 and (j == 2)) or (i == 2 and (j == 2)) or (i == 3 and (j =
            print('I',end=' ')
        else:
            print(' ',end=' ')
    print()

    I I I I I
      I
      I
      I
    I I I I I
```

```
for i in range(5):
    for j in range(5):
        if j == 0 or i == 4:
            print('L ',end='')
    print()
print()
print()
for i in range(4):
    for j in range(7):
        if (i == 0 and j == 3) or (i == 1 and (j == 2 or j == 4)) or (i == 2 and (j == 1 or j == 2 or j == 3 or j == 4 or j == 5)) or (i == 3 a
            print('A',end=' ')
        else:
            print(' ',end=' ')
    print()
print()
print()
for i in range(5):
    for j in range(4):
        if (i == 0 and (j == 0 or j == 1 or j == 2)) or (i == 1 and (j == 0 or j == 3)) or (i == 2 and (j == 0 or j == 2)) or (i == 3 and (j
            print('B',end=' ')
        else:
            print(' ',end=' ')
    print()
print()
print()
for i in range(5):
    for j in range(5):
        if (i == 0 and (j == 0 or j == 1 or j == 2 or j == 3 or j == 4)) or (i == 1 and (j == 2)) or (i == 2 and (j == 2)) or (i == 3 and (j =
            print('I',end=' ')
        else:
            . . . . .
```