

Challenge 1: Staircase pattern

```
for i in range(1, 6):  
    print("*", end="")
```

```
for i in range(1, 6):  
    for j in range(1, i+1):  
        print("*", end="")  
    print()
```

*
**


```
for i in range(1, 6):  
    for j in range(i):  
        print("*", end="")  
    print()
```

*
**


```
N = int(input())  
for i in range(1, N + 1):  
    for j in range(i):  
        print('*', end='')  
    print()
```

5

*
**


```
N = int(input())  
for i in range(1, N):  
    for j in range(i):  
        print('*', end='')  
    print()
```

5

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

Challenge 2: Staircase with numbers

```
for i in range(1, 6):  
    for j in range(1, i+1):  
        if j % 2 == 1:  
            print("*", end="")  
        else:  
            print(j, end="")  
    print()
```

```
*  
*2  
*2*  
*2*4  
*2*4*
```

```
N = int(input())  
# use n+1  
for i in range(1, N):  
    for j in range(1, i+1):  
        if j % 2 == 1:  
            print("*", end="")  
        else:  
            print(j, end="")  
    print()
```

6

```
*  
*2  
*2*  
*2*4  
*2*4*
```

```
N = int(input())  
# use n+1  
for i in range(1, N+1):  
    for j in range(1, i+1):
```

```

        if j % 2 == 1:
            print("*", end="")
        else:
            print(j, end="")
    print()

3
*
*2
*2*

```

```

N = int(input())
for i in range(1, N + 1):
    for j in range(1, i + 1):
        if j % 2 == 0:
            print('*', end='')
        else:
            print(j, end='')
    print()

3

1
1*
1*3

```

Challenge 3: Reverse staircase

```

n = int(input())
for i in range(1, n+1):
    for j in range(n-i+1):
        print("*", end="")
    print()

5

```

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

Do hit and trials
Use pen and paper to deecode the output

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

5

```
01234
0123
012
01
0
```

Challenge 4: Pattern with space

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

```
for i in range(1, n+1):
    for j in range(1, 5):
        if j == 1 or j == 4:
            print("*", end="")
        else:
            print("_", end="")
    print()
```

6

```
* _ *
* _ *
_
```

```

*  *
*  *
*  *
*  *
*  *

```

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

```

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

```

4

```

* _ _ _ *
* _ _ _ *
* _ _ _ *
* _ _ _ *

```

Doubts