loops

① while loop
② for loop
③ nested loop — for()
$\circlearrowright$ #
$\bigstar$

break $\boxed{i == 5: \; for()}$
break #

continue $\boxed{i == 5: \\ continue}$

while

n = 10

```
n = 10
while n >= 0:
    print(n, end=" ")
    n -= 1
```

output
[0, 9, 8, 7, --- , 0]

n = 3
for i in range(1, 11)
print(f" {n} * {i} = answer)

n = 10

for i in range(1, n+1, 1)
  - print(i)
    i += 1

out
1, 2, 3, 4, 5, 6, 7, 8, 9, 10

Functions

→ It are block of organised, reusable code.

→ It dividing a complex problem into small chunks makes our program easy to understand and reuse.

Types

① Pre defined
↓
library functions

① user defined
↓
user defined functions

Recursion.

A function calling by itself

```
def fun()
    Print ("Hello world")
    fun()

fun()
```