

EXECUTE THE PROGRAMS DISCUSSED ON DAY 2

```
#while
i=0
while i<=10:
    print(i)
    i+=1
```

Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 2  
, 15:26:21) [MSC v.1929 64 bit (AMD64)]  
32

Type "help", "copyright", "credits" or "  
e()" for more information.

>>>

=== RESTART: C:/Users/KAWSIKA/AppData/Lo  
ograms/Python/Python39/while.py ==

0

1

2

3

4

5

6

7

8

9

10

>>> |

```
#if else
n=int(input("enter a number:"))
if n%2==0:
    print("even")
else:
    print("odd")
```

Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [AMD64] on win32

Type "help", "copyright", "credits" or "license()" for more

>>>

=== RESTART: C:/Users/KAWSIKA/AppData/Local/Programs/Python/

enter a number:4

even

>>> |

#collections

a=[10,20,30,40,50]

print(a)

print(type(a))

#tuple

a=(10,20,30,40,50)

print(a)

print(type(a))

#set

s={100,200,300,400,500}

print(s)

print(type(s))

Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32

Type "help", "copyright", "credits" or "license()" for more information.

&gt;&gt;&gt;

=== RESTART: C:/Users/KAWSIKA/AppData/Local/Programs/Python/Python39/coll.py ===

[10, 20, 30, 40, 50]

&lt;class 'list'&gt;

(10, 20, 30, 40, 50)

&lt;class 'tuple'&gt;

{400, 100, 500, 200, 300}

&lt;class 'set'&gt;

&gt;&gt;&gt;

#multiple variable

a,b,c=10,30,50

print(a)

print(b)

print(c)

del(b)

print(b)

Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64-bit Intel (AMD64)] on win32

Type "help", "copyright", "credits" or "license()" for more information

&gt;&gt;&gt;

==== RESTART: C:/Users/KAWSIKA/AppData/Local/Programs/Python/Python39/d

10

30

50

Traceback (most recent call last):

File "C:/Users/KAWSIKA/AppData/Local/Programs/Python/Python39/del.py"

in <module>

print(b)

NameError: name 'b' is not defined

&gt;&gt;&gt;

==== RESTART: C:/Users/KAWSIKA/AppData/Local/Programs/Python/Python39/d

10

30

50

Traceback (most recent call last):

File "C:/Users/KAWSIKA/AppData/Local/Programs/Python/Python39/del.py"

in <module>

print(b)

NameError: name 'b' is not defined

&gt;&gt;&gt;

```
#variable  
a=10  
print(a)  
print(id(a))
```

```
a=50  
print(a)  
print(id(a))  
SS|
```

```
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021  
, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win  
32
```

```
Type "help", "copyright", "credits" or "licens  
e()" for more information.
```

```
>>>
```

```
===== RESTART: C:/Users/KAWSIKA/AppData/  
Local/Programs/Python/Python39/var.py =====  
===
```

```
10
```

```
2205556763216
```

```
50
```

```
2205556764496
```

```
>>>
```





```
#finding data type of a variable
```

```
a=20.5
```

```
print(a)
```

```
print(type(a))
```

```
a=10
```

```
print(a)
```

```
print(type(a))
```

```
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [AMD64] on win32
```

```
Type "help", "copyright", "credits" or "license()" for more
```

```
>>>
```

```
= RESTART: C:/Users/KAWSIKA/AppData/Local/Programs/Python/Python39/
```

```
20.5
```

```
<class 'float'>
```

```
10
```

```
<class 'int'>
```

```
>>>
```

```
a=10
b=20
print(a/b)
print(a*b)
print(a-b)
print(a+b)
```

Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:2  
D64)] on win32

Type "help", "copyright", "credits" or "license()" for more

>>>

===== RESTART: C:/Users/KAWSIKA/AppData/Local

.py =====

0.5

200

-10

30

>>> |



```
a=2+10j
print(a)
print(type(a))
```

```
a=True
print(a)
print(type(a))
```

Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1  
D64)] on win32

Type "help", "copyright", "credits" or "license()" for more inform

>>>

= RESTART: C:/Users/KAWSIKA/AppData/Local/Programs/Python/Python39  
(2+10j)

<class 'complex'>

True

<class 'bool'>

>>> |

# PRACTICE PYTHON IN IDLE

```
num = int(input("Enter a number: "))
temp = num
sum = 0
```

```
while(num > 0):
    dig = num % 10
    sum = sum + dig ** 3
    num = num // 10
```

```
if (temp == sum):
    print("Armstrong Number")
else:
    print("Not a Armstrong Number")
```

Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32

Type "help", "copyright", "credits" or "license()" for more information.

>>>

==== RESTART: C:\Users\KAWSIKA\OneDrive\Documents\Python\armstrong\_no.py ====

Enter a number: 153

Armstrong Number

>>>

==== RESTART: C:\Users\KAWSIKA\OneDrive\Documents\Python\armstrong\_no.py ====

Enter a number: 112

Not a Armstrong Number

>>>

```
def fact(n):  
    if n == 0:  
        return 1  
    else:  
        return n * fact(n - 1)  
  
n = int(input('Enter a number: '))  
print(fact(n))
```

```
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021  
, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win  
32  
Type "help", "copyright", "credits" or "licens  
e()" for more information.  
>>>  
===== RESTART: C:\Users\KAWSIKA\OneDrive\Doc  
uments\Python\factorial.py =====  
Enter a number: 5  
120  
>>>
```



```
fibbonaci.py - C:\Users\KAWSIKA\OneDrive\Documents\Python\fibbonaci.py (3.9.6)
File Edit Format Run Options Window Help

def fibo(n):
    if (n <= 1):
        return n
    else:
        return fibo(n - 1) + fibo(n - 2)

n = int(input("Enter a number: "))
if (n <= 0):
    print("Please Enter positive number!")
else:
    print("Fibonacci Series")
    for i in range(n):
        print(fibo(i))
```

```
*IDLE Shell 3.9.6*
File Edit Shell Debug Options Window Help

Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021
, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win
32
Type "help", "copyright", "credits" or "licens
e()" for more information.
>>>
===== RESTART: C:\Users\KAWSIKA\OneDrive\Doc
uments\Python\fibbonaci.py =====
Enter a number: 5
Fibonacci Series
0
1
1
2
3
>>> 0
```



```
# AREA OF SQUARE
```

```
side = int(input("Enter the side of the square:"))
area = side ** 2
print("The Area of the Sqaure: ", area)
```

```
# AREA OF RECTANGLE
```

```
length = int(input("Enter length: "))
breath = int(input("Enter breath: "))
area = length * breath
print("The Area of the Rectangle: ", area)
```

```
# AREA OF TRIANGLE
```

```
height = int(input("Enter height: "))
breath = int(input("Enter breath: "))
area = 0.5 * length * breath
print("The Area of the Triangle: ", area)
```

```
Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win32
```

```
Type "help", "copyright", "credits" or "license()" for more information.
```

```
>>>
```

```
===== RESTART: C:\Users\KAWSIKA\OneDrive\Documents\Python\area.py =====
```

```
Enter the side of the square: 4
```

```
The Area of the Sqaure: 16
```

```
Enter length: 4
```

```
Enter breath: 4
```

```
The Area of the Rectangle: 16
```

```
Enter height: 8
```

```
Enter breath: 4
```

```
The Area of the Triangle: 8.0
```

```
>>> |
```





```
linearsearch.py - C:\Users\KAWSIKA\OneDrive\Documents\Python\linearsearch.py (3.9.6)
File Edit Format Run Options Window Help

def search(alist, key):
    for i in range(0, len(alist)):
        if (key == alist[i]):
            print("Key found!")
            break
        else:
            print("Key not found!")

alist = [34, 8, 7, 89, 76, 23]
print(alist)

key = int(input("Enter the key to be searched:"))
search(alist, key)
```

```
IDLE Shell 3.9.6
File Edit Shell Debug Options Window Help

Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021
, 15:26:21) [MSC v.1929 64 bit (AMD64)] on win
32
Type "help", "copyright", "credits" or "licens
e()" for more information.
>>>
===== RESTART: C:\Users\KAWSIKA\OneDrive\Docu
ments\Python\linearsearch.py =====
[34, 8, 7, 89, 76, 23]
Enter the key to be searched: 23
Key found!
>>> |
```

Ln: 13 Col: 18

Ln: 8 Col: 4