

Reg: sp24-bse-180

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```
a=[1,3,5,6,7,[3,4,5],"hello"]
print(a)
a.insert(3,20)
print(a)
a.remove(7)
print(a)
a.append("hi")
print(a)
len(a)
print(a)
a.pop()
print(a)
a.pop(6)
print(a)
a.clear()
print(a)
```

```
[1, 3, 5, 6, 7, [3, 4, 5], 'hello']
[1, 3, 5, 20, 6, 7, [3, 4, 5], 'hello']
[1, 3, 5, 20, 6, [3, 4, 5], 'hello']
[1, 3, 5, 20, 6, [3, 4, 5], 'hello', 'hi']
[1, 3, 5, 20, 6, [3, 4, 5], 'hello', 'hi']
[1, 3, 5, 20, 6, [3, 4, 5], 'hello']
[1, 3, 5, 20, 6, [3, 4, 5]]
[]
```

```
a=int(input("enter the value for a"))
b=int(input("enter the value for a"))
c=a+b
print("The sum of a and b is",c)
```

```
enter the value for a5
enter the value for a5
The sum of a and b is 10
```

```
import sys
print("System version is:")
print(sys.version)
print("Version Information is:")
print(sys.version_info)
```

```
System version is:
3.12.11 (main, Jun  4 2025, 08:56:18) [GCC 11.4.0]
Version Information is:
```

```
sys.version_info(major=3, minor=12, micro=11, releaselevel='final',
serial=0)
```

```
import datetime
a=datetime.datetime.today()
b=datetime.datetime.now()
print(a)
print(b)
```

```
2025-09-09 06:10:32.194663
2025-09-09 06:10:32.194737
```

```
import numpy as np
arr=np.array([[1,2,3],[4,2,5]])
print("Array is of type:",type(arr))
print("no.of dimensions:",arr.ndim)
print("Shape of array:",arr.shape)
print("Size of array:",arr.size)
print("Array stores elements of type:",arr.dtype)
```

```
Array is of type: <class 'numpy.ndarray'>
no.of dimensions: 2
Shape of array: (2, 3)
Size of array: 6
Array stores elements of type: int64
```

```
import pandas as pd
one=pd.DataFrame({'Name':['teju','gouri'],
'age':[19,20]},
index=[1,2])
two=pd.DataFrame({'Name':['suma','nammu'],
'age':[20,21]},
index=[3,4])
print(pd.concat([one,two]))
```

	Name	age
1	teju	19
2	gouri	20
3	suma	20
4	nammu	21

```
a = 5
print(a, "is of type", type(a))
a = 2.0
print(a, "is of type", type(a))
a = 1+2j
print(a, "is complex number?", isinstance(1+2j,complex))
```

```
5 is of type <class 'int'>
2.0 is of type <class 'float'>
(1+2j) is complex number? True
```

```
x = 15
y = 4
print('x + y =',x+y)
print('x - y =',x-y)
print('x * y =',x*y)
print('x / y =',x/y)
print('x // y =',x//y)
print('x ** y =',x**y)
```

```
x + y = 19
x - y = 11
x * y = 60
x / y = 3.75
x // y = 3
x ** y = 50625
```

```
my_string = 'Hello'
print(my_string)
my_string = "Hello"
print(my_string)
my_string = '''Hello'''
print(my_string)
```

```
my_string = """Hello, welcome to
the world of Python"""
print(my_string)
c=" mlritm"
print(my_string+c)

print(my_string[5:11])
```

```
Hello
Hello
Hello
Hello, welcome to
the world of Python
Hello, welcome to
the world of Python mlritm
, welc
```

```
from datetime import date
today =date.today()
```

```
d1 =today.strftime("%d/%m/%Y")
print("d1 =", d1)
```

```
d2 =today.strftime("%B %d, %Y")
print("d2 =", d2)
```

```
d3 =today.strftime("%m/%d/%y")
print("d3 =", d3)
```

```

d4 = today.strftime("%b-%d-%Y")
print("d4 =", d3)

d1 = 09/09/2025
d2 = September 09, 2025
d3 = 09/09/25
d4 = 09/09/25

my_list = ['p', 'r', 'o', 'b', 'l', 'e', 'm']
my_list.remove('p')

print(my_list)

print(my_list.pop(1))

print(my_list)

print(my_list.pop())

print(my_list)
my_list.clear()

print(my_list)

['r', 'o', 'b', 'l', 'e', 'm']
o
['r', 'b', 'l', 'e', 'm']
m
['r', 'b', 'l', 'e']
[]

my_tuple = ()
print(my_tuple)

my_tuple = (1, 2, 3)
print(my_tuple)

my_tuple = (1, "Hello", 3.4)
print(my_tuple)

my_tuple = ("mouse", [8, 4, 6], (1, 2, 3))
print(my_tuple)

my_tuple = 3, 4.6, "dog"
print(my_tuple)

a, b, c = my_tuple
print(a)

```

```

print(b)
print(c)

()
(1, 2, 3)
(1, 'Hello', 3.4)
('mouse', [8, 4, 6], (1, 2, 3))
(3, 4.6, 'dog')
3
4.6
dog

my_dict = {'name': 'Jack', 'age': 26}

print(my_dict['name'])

print(my_dict.get('age'))

Jack
26

num1 = 10
num2 = 14
num3 = 12

if (num1 >= num2) and (num1 >= num3):
    largest = num1
elif (num2 >= num1) and (num2 >= num3):
    largest = num2
else:
    largest = num3
print("The largest number
between", num1, ",", num2, "and", num3, "is", largest)

The largest number between 10 , 14 and 12 is 14

celsius = 37.5
fahrenheit = (celsius * 1.8) + 32
print('%0.1f degree Celsius is equal to %0.1f degree Fahrenheit' %
(celsius, fahrenheit))

37.5 degree Celsius is equal to 99.5 degree Fahrenheit

a = 5
b = 6
c = 7

s = (a + b + c) / 2

```

```
area = (s*(s-a)*(s-b)*(s-c)) ** 0.5  
print('The area of the triangle is %0.2f' %area)
```

The area of the triangle is 14.70

```
my_list = [12, 65, 54, 39, 102, 339, 221,]
```

```
result = list(filter(lambda x: (x % 13 == 0), my_list))
```

```
print("Numbers divisible by 13 are",result)
```

Numbers divisible by 13 are [65, 39, 221]

```
items = input("Input comma separated sequence of words")
```

```
words = [word for word in items.split(",")]
```

```
print(",".join(sorted(list(set(words)))))
```

Input comma separated sequence of words shayan
,shayan