

```
IDLE Shell 3.10.1
Tython 3.10.1 (v3.10.1:2cd268a3a9, Dec 6 2021, 14:28:59) [Clang 13.0.0 300.0.29.3)] on darwin
Type "help", "copyright", "credits" or "license()" for more information.

>>> age = 12345
      Python 3.10.1 (v3.10.1:2cd268a3a9, Dec 6 2021, 14:28:59) [Clang 13.0.0 (clang-1
>>> type(age)
<class 'i
      id(age)
>>> 10(age)
4400270160
>>> x = "2019"
>>> y = "2000"
>>> int(x) - int(y)
      19
19
type(x)
<class 'str'>
>> x = int("2019")
>>> y = int("2000")
>> x - y
      19
>>>
>>> age = 2019 - int(year) + 1
>>> print("그림 올해", age, "살 이겠군요")
그림 올해 17 살 이겠군요
>>> year = int(input("몇 년도에 태어났나요? "))
몇 년도에 태어났나요? 2003
>>> age = 2018 - year + 1
>>> print("그럼 올해", age, "살이겠군요")
그럼 올해 16 살이겠군요
>>> dict = {"강아지":"dog", "고양이":"cat", "새":"bird"}
>>> dict
       {'강아지': 'dog', '고양이': 'cat', '새': 'bird'}
      dict["강아지"]
       'dog
>>> dict.keys()
dict_keys(['강아지', '고양이', '새'])
>>> dict.values()
      dict_values(['dog', 'cat', 'bird'])
dict.items()
dict_items([('강아지', 'dog'), ('고양이', 'cat'), ('새', 'bird')])
. . .
     ('강아지', 'dog')
('고양이', 'cat')
('새', 'bird')
for item in dict.items():
>>>
            print(item)
. . .
            print(item[0])
. . .
            print(item[1])
. . .
. . .
      ('강아지', 'dog')
      강아지
      dog
('고양이', 'cat')
      고양이
      cat
       ('M', 'bird')
      hird
>>> mydict = {}
>>> mydict['홍길동'] = '010-1111-1111'
>>>
>>> mydict['이순신'] = '010-2222-2222'
      | {'홍길동': '010-1111-1111', '이순신': '010-2222-2222'} | mydict = {'호호홍홍ㄱ기길길길드도동동동'_ = '010-1111-1111', '<u>○이잇이</u>이<u>수순순</u>순,시신신신'_ = '010-2222-2222'}
>>> print(mydict)
      SyntaxError: invalid syntax
>>> |
```

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300.0.29.3)] on darwin
Type "help", "copyright", "credits" or "license()" for more information.
>>> mydict = {'홍길동':'010-1111-1111', '이순신':'010-2222-2222'}
>>> print(mydict)
{'홍길동': '010
('흥길동': '010-1111-1111', '이순신': '010-2222-2222'}
>>> del mydict['이순신']
>>> print(mydict)
{'홍길동': '010-1111-1111'}
>>> dic.clear()
      Traceback (most recent call last):
   File "<pyshell#4>", line 1, in <module>
           dic.clear()
      NameError: name 'dic' is not defined. Did you mean: 'dir'?
>>> mydic.clear()
     Traceback (most recent call last):
File "<pyshell#5>", line 1, in <module>
     mydic.clear()
NameError: name 'mydic' is not defined. Did you mean: 'mydict'?
>>> mydict.clear()
>>> print(mydict)
{}
>>> del mydict
>>> a = "ABC"
>>> i = 1
>>> a[i]
>>> i = 3
>>> a[i]
      Traceback (most recent call last):
File "<pyshell#13>", line 1, in <module>
          a[i]
      IndexError: string index out of range
     len(a)
>>> a = "HELLO Python"
>>> a[0]
>>> a[0:5]
       HELLO
     a[6:12]
>>> a[-11:-8]
     a[0:-7]
'HELLO'
>>> a = 'HELLO'
>>> print(a[0])
>>>
     print(a[-1])
     print([a[0:4]])
      ['HELL']
>>> print([a[:3]])
['HEL']
>>> print([a[0:]])
['HELLO']
>>> a = "save"
>>> b = "earth"
>>> print(a+b)
      saveearth
>>> a = "panimalar"
>>> b = "earth
      SyntaxError: unterminated string literal (detected at line 1)
>>> print(a*3)
     panimalarpanimalarpanimalar

s = "good morning"

"m" in s
>>>
True
>>> "a" not in s
     True
>>> x = 10
>>> ||x is {}
      SyntaxError: unterminated string literal (detected at line 1)
>>>
```

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a = 'happy birthday'

a.capitalize()
    'Happy birthday'

>>> a.upper()
    'HAPPY BIRTHDAY'

a.lower()
    'happy birthday'
         'happy birthday'
a.title()
'Happy Birthday'
a.swapcase()
>>> a.swapcase()
'HAPPY BIRTHDAY'
>>> a.split()
   ['happy', 'birthday']
>>> a.center(19, "*")
   '***happy birthday**'
>>> a.count('happy')
1
>>> a.replace('happy', 'wishyou happy')
    'wishyou happy birthday'
>>> b = "happy"
>>> a = '-'
 >>> a.join(b)
'h-a-p-p-y'
>>> a = 'happy birthday'
         a.isupper()
         False
 >>> a.islower()
         a.isalpha()
         False
         a.isalnum()
         a.isdigit()
 >>>
         False
         a.isspace()
         a.istitle()
 >>>
         a.startswith('h')
         True
         a.endswith('y')
         a.find('happy')
         len(a)
         min(a)
 >>> max(a)
>>> min(a)
```

Ln: 55 Col: 0

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a = 'happy birthday'

a.capitalize()
    'Happy birthday'

>>> a.upper()
    'HAPPY BIRTHDAY'

a.lower()
    'happy birthday'
         'happy birthday'
a.title()
'Happy Birthday'
a.swapcase()
>>> a.swapcase()
'HAPPY BIRTHDAY'
>>> a.split()
   ['happy', 'birthday']
>>> a.center(19, "*")
   '***happy birthday**'
>>> a.count('happy')
1
        a.replace('happy', 'wishyou happy')
'wishyou happy birthday'
b = "happy"
a = '-'
 >>>
 >>> a.join(b)
'h-a-p-p-y'
>>> a = 'happy birthday'
         a isupper()
         False
 >>> a.islower()
         a.isalpha()
         False
         a.isalnum()
         a.isdigit()
 >>>
         False
         a.isspace()
         a.istitle()
 >>>
         a.startswith('h')
         True
         a.endswith('y')
         a.find('happy')
         len(a)
         min(a)
         max(a)
        min(a)
 >>>
```

Ln: 49 Col: 0

```
IDLE Shell 3.10.1
Python 3.10.1 (v3.10.1:2cd268a3a9, Dec 6 2021, 14:28:59) [Clang 13.0.0 (clang-1 300.0.29.3)] on darwin
Type "help", "copyright", "credits" or "license()" for more information.

a = []
b = [1, 2, 3]
>>> c = ['Life', 'is', 'too', 'short']
d = [1, 2, 'Life', 'is']
e = [1, 2, ['Life', 'is']]
a = [1, 2, 3]
>>> a = [1, 2, 3]
 >>> a[0]
>>> a[0] + a[2]
>>> a = [1, 2, 3, ['a', 'b', 'c']]
>>> a[0]
>>> a[-1]
['a', 'b', 'c']
>>> a[3]
['a', 'b', 'c']
>>> a[-1][0]
 >>> a[-1][1]
 >>> a[-1][2]
 >>> a = [1, 2, ['a', 'b', ['Life', 'is']]]
 >>> a[2][2][0]
>>> a[2][2][0]
'Life'
>>> a[1, 2, 3, 4, 5]
Traceback (most recent call last):
    File "<pyshell#17>", line 1, in <module>
        a[1, 2, 3, 4, 5]
TypeError: list indices must be integers or slices, not tuple
a = [1, 2, 3, 4, 5]
>>> a[0:2]
    [1, 2]
[1, 2]
>>> b = a[:2]
>>> c = a[2:]
>>> b
         [1, 2]
>>>
 >>> a = [1, 2, 3, ['a', 'b', 'c'], 4, 5]
>>> a+b

[1, 2, 3, 4, 5, 6]

>>> a = [1, 2, 3]

>>> a*3
 >>> a*3
[1, 2, 3, 1, 2, 3, 1, 2, 3]
>>> a = [1, 2, 3]
>>> len(a)
```

Ln: 58 Col: 0

```
Python 3.10.1 (v3.10.1:2cd268a3a9, Dec 6 2021, 14:28:59) [Clang 13.0.0 (clang-1
300.0.29.3)] on darwin
Type "help", "copyright", "credits" or "license()" for more information.
a = [1, 2, 3]
a.append(4)
a
[1 2 2 4]
>>> a
[1, 2, 3, 4]
>>> a = [1, 4, 3, 2]
>>> a.sort()
>>> a = ['a', 'c', 'b']
>>> a.reverse()
>>> a
['b', 'c', 'a']
>>> a.index(3)
2
  >>> a.index(1)
 >>> a = [1, 2, 3]
>>> a.insert(0, 4)
 [4, 1, 2, 3]
>>> a.insert(3, 5)
>>> a.Insert(3, 3, 3)
>>> a
[4, 1, 2, 5, 3]
>>> a = [1, 2, 3, 1, 2, 3]
>>> a.remove(3)
 >>> a
|[1, 2, 1, 2, 3]
>>> a = [1, 2, 3]
>>> a.pop()
 >>> a [1, 2]
>>> a = [1, 2, 3, 1]
>>> a.count(1)
2
>>> a = [1, 2, 3]
>>> a.extend([4, 5])
>>> a
        [1, 2, 3, 4, 5]
>>> b = [6, 7]
>>> a.extend(b)
>>> a
            [1, 2, 3, 4, 5, 6, 7]
 >>>
```

Ln: 28 Col: 0