```
In [20]: print ("sfdg")

         sfdg

In [ ]:

In [21]: 1
         2
         3
         4
         5
         6

Out[21]: 6

In [22]: 1+2
         5+8

Out[22]: 13

In [23]: l = [
             'rafail',
             'andreas',
             'aggelos',
             'elena',
             'marianna',
             'olympia',
             'agaph',
             'nikos',
             'melina',
             'katerina',
             'anna',
         ]

In [24]: import random

         def g():
             return random.choice(l)

In [78]: g()

Out[78]: 'andreas'

In [69]: 3+5

Out[69]: 8

In [71]: 5/2

Out[71]: 2.5

In [72]: 2/5

Out[72]: 0.4

In [74]: 6/3
```

```
Out[74]: 2.0

In [75]: 5//2

Out[75]: 2

In [79]: 11%7

Out[79]: 4

In [81]: 2 ** 4

Out[81]: 16

In [ ]:

In [80]: g()

Out[80]: 'rafail'

In [27]: # sdlfkghsdfgjhsdl kfjghslkdfgn

In [82]: 'DFGHJK'

Out[82]: 'DFGHJK'

In [83]: 5+4

Out[83]: 9

In [84]: 'abc' + 'def'

Out[84]: 'abcdef'

In [85]: 'abc' * 10

Out[85]: 'abcabcabcabcabcabcabcabcabcabc'

In [86]: print ('sgsdg')

         sgsdg

In [87]: len('sdfgsdfgsdfg')

Out[87]: 12

In [88]: g()

Out[88]: 'nikos'

In [89]: len('nikos' * 3)

Out[89]: 15
```

```
In [90]: len('')

Out[90]: 0

In [91]: g()

Out[91]: 'andreas'

In [92]: len(' ')

Out[92]: 1

In [94]: g()

Out[94]: 'katerina'

In [95]: 'abc' + 'def'

Out[95]: 'abcdef'

In [ ]:

In [96]: '1' + '2'

Out[96]: '12'

In [97]: 1+2

Out[97]: 3

In [98]: 'fkghsdfg1932 4123418273648172365481726354'

Out[98]: 'fkghsdfg1932 4123418273648172365481726354'

In [99]: 'fsd'

Out[99]: 'fsd'

In [100… "asdfsdf"

Out[100]: 'asdfsdf'

In [101… "H 'gata' tou Nikoy"

Out[101]: "H 'gata' tou Nikoy"

In [103… "Nick's cat"

Out[103]: "Nick's cat"

In [104… 'Nick\'s cat'

Out[104]: "Nick's cat"

In [105… 'asdfdfasdfasd νηγδδ φγηδ φγηδ γη δγφ 😋😋😋😋😋😋😋'
```

```
Out[105]:  'asdfdfasdfasd νηγδδ φγηδ φγηδ γη δγφ 😋😋😋😋😋😋😋'
```

```
In [106… 😋 = 'asdfasdf'
```

```
  Input In [106]
    😋 = 'asdfasdf'
    ^
SyntaxError: invalid character '😋' (U+1F60B)
```

```
In [107… φανταστική_μεταβλητή = 'asdfasdf'
```

```
In [109… φανταστική_μεταβλητή + 'sfgs'
```

```
Out[109]:  'asdfasdfsfgs'
```

```
In [110… 'sdfgsdfgsdfgssdfg'.count('s')
```

```
Out[110]:  5
```

```
In [111… 'adfasdfadf'.count('ad')
```

```
Out[111]:  2
```

```
In [112… len('dfasdfadf')
```

```
Out[112]:  9
```

```
In [114… 'alexandros'.index('x')
```

```
Out[114]:  3
```

```
In [113… g()
```

```
Out[113]:  'rafail'
```

```
In [115… 'xxxx'.count('xx')
```

```
Out[115]:  2
```

```
In [116… 'xxxx'.count('dfghd')
```

```
Out[116]:  0
```

```
In [117… 'xxxx'.index('dfghd')
```

```
---------------------------------------------------------------------------
ValueError                                Traceback (most recent call las
Input In [117], in <cell line: 1>()
----> 1 'xxxx'.index('dfghd')

ValueError: substring not found
```

```
In [118… 'afgsadgsdfgs'.find('ttt')
```

```
Out[118]:  -1
```

```
In [119… 'afgsadgsdfgs'.find('f')
```

```
Out[119]:  1

In [120…  'abcbcbcbc'.index('b')

Out[120]:  1

In [121…  'abc'  'def'

Out[121]:  'abcdef'

In [123…  'a', 'b' 'c'

Out[123]:  ('a', 'bc')

In [124…  a = 7

In [125…  print (a)

          7

In [126…  a=7
          b = 8

          print (a+b)

          15

In [127…  age = 50

In [128…  print ('My age is', age)

          My age is 50

In [131…  print ('My age is ' + str(age))

          My age is 50

In [132…  print ('My age is %s' % age)

          My age is 50

In [135…  print ('My age is {0}'.format(age))

          My age is 50

In [136…  print (f'My age is {age}')

          My age is 50

In [139…  f'gfdhf {age} ghfghf'

Out[139]:  'gfdhf 50 ghfghf'

In [140…  a=25298534986739485623985639856239845629384756239847562938475629387456293

In [141…  a

Out[141]:  252985349867394856239856398562398456293847562398475629384756293874562938
           4765

In [144…  print (34**109)
```

```
8534969187882877459682187255782720293344687321636289005205386726209084353
7661537867197058700970058601461194548823137984673121405399480355897151108
565704949045567422464
```

```
In [145…  1.34523452312234562452345245

Out[145]:  1.3452345231223457
```

```
In [146…  a = 1/3
```

```
In [147…  a

Out[147]:  0.3333333333333333
```

```
In [148…  a*3

Out[148]:  1.0
```

```
In [149…  b=3
```

```
In [150…  1/b + 1/b + 1/b

Out[150]:  1.0
```

```
In [151…  a

Out[151]:  0.3333333333333333
```

```
In [158…  print (f'the value is {1/7:.100f}') # Decimal('0.142857142857142857142857

          the value is 0.1428571428571428492126926812488818541169166564941406250000
          000000000000000000000000000000000000000000
```

```
In [157…  import decimal
```

```
In [130…  str(45356)

Out[130]:  '45356'
```

```
In [159…  a=3
          b=5
          c =        8
```

```
In [160…  a=3
           b = 3

            Input In [160]
              b = 3
              ^
          IndentationError: unexpected indent
```

```
In [161…  'sdfgdfgd'.upper()

Out[161]:  'SDFGDFGD'
```

```
In [162…  'dASDFDfAsdfaSDfadsfasfd'.lower()

Out[162]:  'dasdfdfasdfasdfadsfasfd'

In [163…  'alexandros'.replace('a', 'O')

Out[163]:  'OlexOndros'

In [164…  'alexandros'.replace('ale', 'O')

Out[164]:  'Oxandros'
```

Indexing !

- item 1
- item **2**

this is a link

```
In [165…  'Alexandros'.index('x')

Out[165]:  3

In [166…  'Alexandros'[3]

Out[166]:  'x'

In [167…  'Alexandros'[0]

Out[167]:  'A'

In [168…  'Alexandros'[100]

           ---------------------------------------------------------------------------
           IndexError                                Traceback (most recent call las
           Input In [168], in <cell line: 1>()
           ----> 1 'Alexandros'[100]

           IndexError: string index out of range

In [174…  'Alexandros'[3:6]

Out[174]:  'xan'

In [176…  'Alexandros'[3:100]

Out[176]:  'xandros'

In [179…  'Alexandros'[3:]

Out[179]:  'xandros'

In [181…  'Alexandros'[0:5]

Out[181]:  'Alexa'
```

```
In [183…  'Alexandros'[:5]

Out[183]:  'Alexa'

In [190…  'Alexandros'[-3]

Out[190]:  'r'

In [192…  'Alexandros'[5:-1]

Out[192]:  'ndro'

In [193…  -1//2

Out[193]:  -1

In [194…  -1//3

Out[194]:  -1

In [196…  1//3

Out[196]:  0

In [197…  -(1//3)

Out[197]:  0

  In [ ]:  

In [191…  g()

Out[191]:  'elena'

  In [ ]:  

In [187…  g()

Out[187]:  'agaph'

  In [ ]:  

In [175…  g()

Out[175]:  'olympia'

In [172…  

Out[172]:  'aggelos'

In [198…  a = 5

In [199…  g()

Out[199]:  'andreas'
```

In [200…

```
a = a + 1
print (a)
```

```
6
```

In [201…

```
a = 5 + 1
```

In [202…

```
a = a + 1
```

In [204…

```
a=0

a = a + 1
a = a + 1
a = a + 1

print (a)
```

```
3
```

In [206…

```
a=0

a +=1
a +=1
a +=1

print (a)
```

```
3
```

In [207…

```
a=0

a -=1
a -=1
a -=1

print (a)
```

```
-3
```

In [208…

```
a=2

a *=5
a *=5
a *=5

print (a)
```

```
250
```

In [211…

```
True + 1
```

Out[211]:

```
2
```

In [214…

```
False * 10
```

Out[214]:

```
0
```

In [217…

```
3 > 5
```

Out[217]:

```
False
```

```
In [219…  10 <= 10

Out[219]:  True

In [222…  11 >= 12

Out[222]:  False

In [226…  3<5<8

Out[226]:  True

In [227…  True+ True

Out[227]:  2

In [228…  True and True

Out[228]:  True

In [229…  False and True

Out[229]:  False

In [230…  True and False

Out[230]:  False

In [231…  False and False

Out[231]:  False

In [232…  True or True

Out[232]:  True

In [233…  False or True

Out[233]:  True

In [234…  True or False

Out[234]:  True

In [235…  False or False

Out[235]:  False

In [236…  5 and 3

Out[236]:  3

In [237…  5 or 3

Out[237]:  5
```

```
In [238… bool('alexandros')

Out[238]: True

In [239… bool('')

Out[239]: False

In [240… bool(1234)

Out[240]: True

In [241… bool(0)

Out[241]: False

In [242… bool(11234.1341)

Out[242]: True

In [243… bool(0.0)

Out[243]: False

In [244… bool(0.000000000000000001)

Out[244]: True

In [245… bool(0.00000000000000000000000000000000000000000000000000000000000000001)

Out[245]: True

In [246… 0.00000000000000000000000000000000000000000000000000000000000000001

Out[246]: 1e-65

In [247… 5 or 3

Out[247]: 5

In [248… 5 or 1/0

Out[248]: 5

In [249… 0 or 0 or 5 or 1/0

Out[249]: 5

In [250… 5 and 5 and 0 and 1/0

Out[250]: 0

In [251… 5 and 5 and 0 and 23452345**2345234523452345

Out[251]: 0
```

```
In [252… not True

Out[252]: False

In [253… not False

Out[253]: True

In [254… not 5

Out[254]: False

In [255… bool(True) ^ bool(True)

Out[255]: False

In [256… bool(4) ^ bool(7)

Out[256]: False

In [257… bool(4) ^ bool(0)

Out[257]: True

In [258… bool(0) ^ bool(0)

Out[258]: False

In [224… (3<4)

Out[224]: True

  In [ ]:

  In [ ]:

In [220… g()

Out[220]: 'melina'

  In [ ]:

In [203… g()

Out[203]: 'elena'

In [259… int(6.7)

Out[259]: 6

In [261… int('6')

Out[261]: 6

In [262… int(float('6.7'))
```

```
Out[262]:  6

In [263…  float(6)

Out[263]:  6.0

In [264…  float('7.7')

Out[264]:  7.7

In [265…  float(True)

Out[265]:  1.0

In [266…  str(7+4)

Out[266]:  '11'

In [267…  bool('')

Out[267]:  False

In [268…  help(''.replace)

          Help on built-in function replace:

          replace(old, new, count=-1, /) method of builtins.str instance
              Return a copy with all occurrences of substring old replaced by new.

                count
                  Maximum number of occurrences to replace.
                  -1 (the default value) means replace all occurrences.

              If the optional argument count is given, only the first count occurre
          nces are
              replaced.

In [271…  bool('ssdgsdfg')

Out[271]:  True

In [272…  bool(' ')

Out[272]:  True

 In [ ]:
```