Python as a calculator

In [1]:
```
2+2
```

Out[1]: 4

In [2]:
```
50-5*6
```

Out[2]: 20

In [3]:
```
(50-5*6)/4
```

Out[3]: 5.0

In [4]:
```
8/5     # division always returns a floating point number
```

Out[4]: 1.6

In [5]:
```
8//5   #without floating point
```

Out[5]: 1

In [6]:
```
17/3
```

Out[6]: 5.666666666666667

In [7]:
```
17//3
```

Out[7]: 5

In [8]:
```
17%3
```

Out[8]: 2

In [9]:
```
5*3+2
```

Out[9]: 17

In [10]:
```
5**2
```

Out[10]: 25

In [11]:
```
2**7
```

Out[11]: 128

In [12]:
```
width = 20
height = 5*9
width * height
```

Out[12]: 900

In [13]:
```
n
```

```
---------------------------------------------------------------------------
NameError                                 Traceback (most recent call last)
Cell In[13], line 1
----> 1 n

NameError: name 'n' is not defined
```

In [14]:
```
4 * 3.75 -1
```

Out[14]: 14.0

In [15]:
```
tax = 12.5/ 100
price = 100.50
price * tax
```

Out[15]: 12.5625

In [16]:
```
price + _
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[16], line 1
----> 1 price + _

TypeError: unsupported operand type(s) for +: 'float' and 'str'
```

In [17]:
```
price + 12.5625
```

Out[17]: 113.0625

In [18]:
```
round(_, 2)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[18], line 1
----> 1 round(_, 2)

TypeError: type str doesn't define __round__ method
```

Text

In [19]:
```
'spam eggs'
```

Out[19]: 'spam eggs'

In [20]:
```
"paris rabbit got your back :)! Yay!"
```

Out[20]: 'paris rabbit got your back :)! Yay!'

In [21]:
```
'1975'
```

Out[21]: '1975'

In [22]:
```
doesn\'t'
```

Out[22]: "doesn't"

In [23]:
```
"doesn't"
```

Out[23]: "doesn't"

In [24]:
```
'"Yes, " they said.'
```

Out[24]: '"Yes, " they said.'

In [25]:
```
"\"Yes, \" they said."
```

Out[25]: '"Yes, " they said.'

In [28]:
```
'"Isn\'t "they said '
```

Out[28]: '"Isn\'t "they said '

In [30]:
```
s = 'First line. \nSecond line.'
s
```

Out[30]: 'First line. \nSecond line.'

In [31]:
```
print(s)
```

```
First line.
Second line.
```

In [32]:
```
print ('C:\some\name')
```

```
C:\some
ame
<>:1: SyntaxWarning: invalid escape sequence '\s'
<>:1: SyntaxWarning: invalid escape sequence '\s'
C:\Users\Dell\AppData\Local\Temp\ipykernel_9968\3509016597.py:1: SyntaxWarning: invalid escape sequence '\s'
  print ('C:\some\name')
```

In [33]:
```
print (r'C:\some\name')
```

```
C:\some\name
```

In [34]:
```
print ("""\
```

```
  Cell In[34], line 1
    print ("""\
          ^
SyntaxError: incomplete input
```

In [35]:
```
# 3 times 'un', followed by 'ium'
3*'un' + 'ium'
```

Out[35]:
```
'unununium'
```

In [36]:
```
'py' 'thon'
```

Out[36]:
```
'python'
```

In [37]:
```
text = ('put several string within paranthsis'
        'to have them joined together.')
```

In [38]:
```
text
```

Out[38]:
```
'put several string within paranthsisto have them joined together.'
```

In [39]:
```
prefix = 'py'
prefix ='thon'
```

In [40]:
```
('un' *3) 'ium'
```

```
  Cell In[40], line 1
    ('un' *3) 'ium'
              ^
SyntaxError: invalid syntax
```

In [41]:
```
prefix + 'thon'
```

Out[41]:
```
'thonthon'
```

In [42]:
```
word = 'python'
word[0]
```

Out[42]:
```
'p'
```

In [43]:
```
word[5]
```

Out[43]:
```
'n'
```

In [44]:
```
word[2]
```

Out[44]:
```
't'
```

In [45]:
```
word[-1]
```

Out[45]:
```
'n'
```

In [46]:
```
word[-2]
```

Out[46]:
```
'o'
```

In [47]:
```
word[-3]
```

Out[47]:
```
'h'
```

In [48]:
```
word[-6]
```

Out[48]:
```
'p'
```

In [49]:
```
word[0:2]
```

Out[49]:
```
'py'
```

In [50]:
```
word[0:6]
```

Out[50]:
```
'python'
```

In [51]:
```
word[:6]
```

Out[51]:
```
'python'
```

In [52]:
```
word[:2] + word[2:]
```

Out[52]: 'python'

In [55]:
```
word[:4] + word[4:]
```

Out[55]: 'python'

In [56]:
```
word[42]
```

```
---------------------------------------------------------------------------
IndexError                                Traceback (most recent call last)
Cell In[56], line 1
----> 1 word[42]

IndexError: string index out of range
```

In [57]:
```
word[4:42]
```

Out[57]: 'on'

In [58]:
```
word[42:]
```

Out[58]: ''

In [59]:
```
word[0]='J'
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[59], line 1
----> 1 word[0]='J'

TypeError: 'str' object does not support item assignment
```

In [60]:
```
word[2:]= 'py'
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[60], line 1
----> 1 word[2:]= 'py'

TypeError: 'str' object does not support item assignment
```

In [61]:
```
'J' + word[1:]
```

Out[61]: 'Jython'

In [62]:
```
word[:2] + 'py'
```

Out[62]: 'pypy'

In [64]:
```
s = 'supercallfragilisticexpialidocious'
len(s)
```

Out[64]: 34

In [65]:
```
squares = [1, 4, 9, 16, 25]
squares
```

Out[65]: [1, 4, 9, 16, 25]

In [66]:
```
squares[0]
```

Out[66]: 1

In [67]:
```
squares[-1]
```

Out[67]: 25

In [68]:
```
squares[-3]
```

Out[68]: 9

In [70]:
```
cubes = [1,8, 27, 65, 125]
4**3
```

Out[70]: 64

In [71]:
```
cubes[3] = 64
cubes
```

Out[71]: [1, 8, 27, 64, 125]

In [72]:
```
cubes.append(216)
cubes.append(7**3)
cubes
```

Out[72]:
```
[1, 8, 27, 64, 125, 216, 343]
```

In [74]:
```
rgb = ["Red", "Green", "Blue"]
rgba=rgb
id(rgb) ==id(rgba)
```

Out[74]:
```
True
```

In [75]:
```
rgba.append("Alph")
rgb
```

Out[75]:
```
['Red', 'Green', 'Blue', 'Alph']
```

In [ ]:

In [ ]:

In [ ]:

In [ ]:

In [ ]: