

```
In [1]: 1 text=input()
        2 reverse_text=text[::-1]
        3 for char in reverse_text:
        4     print(char)
```

```
678
8
7
6
```

```
In [4]: 1 #90 80 100
        2 marks=input()
        3 marks_list=list(map(int,marks.split()))
        4 print(sum(marks_list)//len(marks_list))
```

```
90 80 70
80
```

```
In [6]: 1 s1="1"
        2 s2='3'
        3 print(int(s1)+int(s2))
        4 print(type(s1))
```

```
4
<class 'str'>
```

## Strings in python

```
In [8]: 1 s="python programming"
        2 print(len(s))
```

```
18
```

```
In [10]: 1 s[17]
```

```
Out[10]: 'g'
```

```
In [11]: 1 s[-3]
```

```
Out[11]: 'i'
```

```
In [12]: 1 s[-1]
```

```
Out[12]: 'g'
```

```
In [13]: 1 s[::-1]
```

```
Out[13]: 'gnimmargorp nohtyp'
```

```
In [2]: 1 s="python programming"
        2 s[0:1]
```

Out[2]: 'p'

```
In [17]: 1 s
```

Out[17]: 'python programming'

```
In [22]: 1 s[0:5]
```

Out[22]: 'pytho'

```
In [24]: 1 s[7:18]
```

Out[24]: 'programming'

```
In [25]: 1 s[7:18:2]
```

Out[25]: 'pormig'

```
In [31]: 1 s[5:0:-1]
```

Out[31]: 'nohty'

```
In [32]: 1 s[7:]
```

Out[32]: 'programming'

```
In [33]: 1 s[:]
```

Out[33]: 'python programming'

```
In [34]: 1 s[::-1]
```

Out[34]: 'gnimmargorp nohtyp'

```
In [35]: 1
```

Out[35]: 'python programmin'

```
In [41]: 1 s="python"
        2 print(s.upper())
        3 print(len(s))
```

PYTHON

6

**str.startswith(sub\_string)**

```
In [45]: 1 s="anii"
          2 print(s.startswith('a'))
          3
          4 or
          5
          6 main='python'
          7 sub='p'
          8 print(main.startswith(sub))
```

True

```
In [50]: 1 main='python'.lower()
          2 sub='P'.lower()
          3
          4 print(main.startswith(sub))
```

True

```
In [52]: 1 main='python programming'
          2 print(main.endswith('ing'))
```

True

```
In [54]: 1 s="123"
          2 print(s.isdigit())
```

False

```
In [58]: 1 s="python programming"
          2 result=s.split()
          3 print(result,type(result))
```

['python', 'programming'] <class 'list'>

```
In [59]: 1 s="python programming"
          2 result=s.split()
          3 print(result[1])
```

programming

```
In [61]: 1 s=" anee "
          2 result=s.lstrip()
          3 print(len(s),len(result),result)
```

6 5 anee

```
In [68]: 1 s=" aneesha "
          2 result=s.lstrip()
          3 p=result.rstrip()
          4 print(p)
```

aneesha

```
In [70]: 1 s="PYTHON"
         2 print(s.isupper())
```

True

```
In [77]: 1 s="python"
         2 print(s.isalpha())
```

True

```
In [79]: 1 s="pythonPROGRAMMING"
         2 print(s.swapcase())
```

PYTHONprogramming

```
In [80]: 1 s="python programming"
         2 print(s.title())
```

Python Programming

```
In [81]: 1 s="python"
         2 print(s.find('o'))
```

4

```
In [85]: 1 s="python"
         2 print(s.find('on'))
```

4

```
In [86]: 1 s="python"
         2 print(s.replace('n','oon'))
```

pythoon

```
In [5]: 1 s="python programming"
        2 print(s.rfind('m'))
```

14

```
In [12]: 1 s="python programming"
         2 c=list(s)
         3 print(c)
```

['p', 'y', 't', 'h', 'o', 'n', ' ', 'p', 'r', 'o', 'g', 'r', 'a', 'm', 'm', 'i', 'n', 'g']

```
In [95]: 1 s="python"
         2 print(s.index('o'))
```

4

```
In [97]: 1 s=['p','y','t','h','o','n']
2 print("".join(s))
```

python

```
In [98]: 1 s="apssdc"
2 s[0].upper()+"".join(s[1:])
3 # or
4 # s.capitalize()
```

Out[98]: 'Apssdc'

```
In [103]: 1 s="Python Programming"
2 print(s.istitle())
```

True

```
In [105]: 1 s="python"
2 list(s)
```

Out[105]: ['p', 'y', 't', 'h', 'o', 'n']

```
In [106]: 1 t=2
2 n=5
3 for i in range(1,n+1):
4     print(t,"*",i,"=",t*i)
```

```
2 * 1 = 2
2 * 2 = 4
2 * 3 = 6
2 * 4 = 8
2 * 5 = 10
```

```
In [ ]: 1
```

```
In [51]: 1
2
```

please enter positive

In [91]:

```
1
2
```

Prime numbers between 900 and 1000 are:

```
907
911
919
929
937
941
947
953
967
971
977
983
991
997
```

In [121]:

```
1 li=[1,'abc',45.09]
2 li.append(89)
3 li.insert(2,34)
4 li[1]=23
5 li[3]=12
6 li
```

Out[121]: [1, 23, 34, 12, 89]

In [130]:

```
1 li.remove(12)
2 li
3
```

```
-----
ValueError                                Traceback (most recent call last)
<ipython-input-130-10ce976e8a06> in <module>
----> 1 li.remove(12)
      2 li
```

**ValueError:** list.remove(x): x not in list

In [134]:

```
1 li,remove(34)
2
```

```
-----
NameError                                Traceback (most recent call last)
<ipython-input-134-5b7af46d57da> in <module>
----> 1 li,remove(34)
```

**NameError:** name 'remove' is not defined

In [137]:

```
1 li.clear()
2
```

```
In [139]: 1 li1=[1,2,3,4]
          2 li1
```

Out[139]: [1, 2, 3, 4]

```
In [145]: 1 li=[1,2,9,4,5,7]
          2 li.sort()
          3 li
```

Out[145]: [1, 2, 4, 5, 7, 9]

```
In [148]: 1 li.sort(reverse=True)
          2 li
```

Out[148]: [9, 7, 5, 4, 2, 1]

```
In [149]: 1 li[::-1]
```

Out[149]: [1, 2, 4, 5, 7, 9]

```
In [158]: 1 li.reverse()
```

```
In [160]: 1 cli=li
```

```
In [166]: 1 cli.append(345)
          2
```

Out[166]: [1, 2, 4, 5, 7, 9, 345, 345, 345, 345, 345]

```
In [170]: 1 cli.pop()
```

Out[170]: 345

```
In [173]: 1 cli2=li.copy()
          2 print(cli2,li)
```

[1, 2, 4, 5, 7, 9, 345, 345, 345, 345] [1, 2, 4, 5, 7, 9, 345, 345, 345, 345]

```
In [174]: 1 li.extend(cli2)
          2 li
```

Out[174]: [1, 2, 4, 5, 7, 9, 345, 345, 345, 345, 1, 2, 4, 5, 7, 9, 345, 345, 345, 345]

```
In [178]: 1 li1=[1,2,3]
          2 li2=[4,5,6]
          3 li1.append(li2)
          4 li1
```

Out[178]: [1, 2, 3, [4, 5, 6]]

```
In [180]: 1 li1[3][2]
```

Out[180]: 6

```
In [ ]: 1 li=[1,2,2,3,5,6,5,4]
```

```
In [183]: 1 li.count(5)
```

```
Out[183]: 2
```

```
In [191]: 1 for i in [8,9,10]:
          2     li2.insert(1,i)
          3 li2
          4
```

```
Out[191]: [4, 10, 9, 8, 10, 9, 8, 10, 9, 8, 5, 6]
```

```
In [185]: 1 li
```

```
Out[185]: [1,
           2,
           2,
           4,
           5,
           7,
           9,
           345,
           345,
           345,
           345,
           1,
           2,
           4,
           5,
           7,
           9,
           345,
           345,
           345,
           345,
           [1, 2, 4, 5, 7, 9, 345, 345, 345, 345]]
```

```
In [2]: 1 l=[8,9,10]
        2 l=l[::-1]
        3 for i in l :
        4     li2.insert(1,i)
        5 li2
        6
```

-----  
**NameError**

Traceback (most recent call last)

<ipython-input-2-671308ee6fcc> in <module>

```
      2 l=l[::-1]
      3 for i in l :
----> 4     li2.insert(1,i)
      5 li2
```

**NameError**: name 'li2' is not defined



```
In [197]: 1 print(sum(1),max(1),min(1))
```

```
27 10 8
```

```
In [5]: 1  
2  
3 l=list()  
4 l
```

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

```
In [1]: 1 #3  
2 #4 2 5 6 7  
3 #45 23 76  
4 #23 34 12 45 67  
5 t=int(input())  
6 for i in range(t):  
7     lis=list(map(int,input().split()))  
8     print(sum(lis))  
9     print(sum(lis)//len(lis))  
10  
11
```

```
3  
4 2 5 6 7  
24  
4  
45 23 76  
144  
48  
23 34 12 45 67  
181  
36
```

```
In [18]: 1 s="123 876"  
2 s.swapcase()  
3
```

```
Out[18]: '123 876'
```

```
In [ ]: 1
```

```
In [ ]: 1
```

```
In [ ]: 1
```

```
In [ ]: 1
```

In [141]: 1 `del li1`

```
-----  
NameError                                Traceback (most recent call last)  
<ipython-input-141-fe5f3f59f6db> in <module>  
----> 1 del li1  
  
NameError: name 'li1' is not defined
```

In [142]: 1 `li1`

```
-----  
NameError                                Traceback (most recent call last)  
<ipython-input-142-ac6881d35ffe> in <module>  
----> 1 li1  
  
NameError: name 'li1' is not defined
```

In [ ]: 1

In [ ]: 1

```
In [109]: 1 dir(li)
```

```
Out[109]: ['__add__',
            '__class__',
            '__contains__',
            '__delattr__',
            '__delitem__',
            '__dir__',
            '__doc__',
            '__eq__',
            '__format__',
            '__ge__',
            '__getattr__',
            '__getitem__',
            '__gt__',
            '__hash__',
            '__iadd__',
            '__imul__',
            '__init__',
            '__init_subclass__',
            '__iter__',
            '__le__',
            '__len__',
            '__lt__',
            '__mul__',
            '__ne__',
            '__new__',
            '__reduce__',
            '__reduce_ex__',
            '__repr__',
            '__reversed__',
            '__rmul__',
            '__setattr__',
            '__setitem__',
            '__sizeof__',
            '__str__',
            '__subclasshook__',
            'append',
            'clear',
            'copy',
            'count',
            'extend',
            'index',
            'insert',
            'pop',
            'remove',
            'reverse',
            'sort']
```

```
In [204]: 1 n = input("eNTER  STRING\n")
          2 length = int(len(n))
          3 n = str(n)
          4
          5 for i in range(0, int(length/2+1)):
          6     if n[i] != n[-i - 1]:
          7         break
          8
          9 if i < int(length/2 + 1):
         10     print("not")
         11 else:
         12     print("yes")
         13
```

```
eNTER  STRING
hel
not
```

```
In [208]: 1 n[-i-1]
```

```
Out[208]: '1'
```

```
In [ ]: 1 s=input()
        2
```