In [1]:

```
a = {1,2,3,4,5}
```

In [4]:

```
for i in a:
    print(i)
```

```
1
2
3
4
5
```

In [7]:

```
for _  in a:
    print(_)
```

```
1
2
3
4
5
```

In [8]:

```
print(_)
```

```
5
```

In [15]:

```
for i in a:
    print(2*i)
```

```
2
4
6
8
10
```

In [13]:

```
# Take a list and print the sum of all the elements in the list
# Take a list and check if each number is even or odd
# Take this list , for each number if the number is divisible by 2 multiply it by 10
# increase every number in the list by adding 10
# decrease every number by dividing it by 4
# for every number print how far is it away from the number
# add another number 554 to the list
```

Out[13]:

```
7
```

In [1]:

```
list=[1,2,3,4,5,6]
print(sum(list))
```

```
21
```

In [7]:

```
list=[1,2,3,4,5,6]
x=0
for x in list:
    if x%2==0:
        print("even")
    else:
        print("odd")
```

```
odd
even
odd
even
odd
even
```

In [8]:

```
x=0
for x in list:
    if x%2==0:
        print(x*10)
    else:
        print(x*15)
```

```
15
20
45
40
75
60
```

In [9]:

```
x=0
for x in list:
    print(x+10)
```

```
11
12
13
14
15
16
```

In [10]:

```
x=0
for x in list:
    print(x/4)
```

```
0.25
0.5
0.75
1.0
1.25
1.5
```

In [12]:

```
list.append(554)
print(list)
```

```
[1, 2, 3, 4, 5, 6, 554, 554]
```

In [14]:

```
x=0
for x in list:
    print(abs(x-100))
```

```
99
98
97
96
95
94
454
454
```

In [ ]:

```
1.create a string with name  s="America"
2.now make the whole str uppercase, lowercase and capital case
3.can you get the first 3  cahracters pf thes string usig sllice method
4.can you create a new str with the chaacters at the begginng and  at teh s=end uisr
5.get the index of the character m
6.split the str into 2 based on whwere i is
#get the count of letters a
8.add naother str called united at the end
9.add another str united at the begging
10.extracyt all the charcyers whose indexes are eeven
11.gget the asci valuse of each character of str america
#get the sum of the values of all the characyers in america and tell if its even or
13.replace a letter a with x
14.get th second charcetre and last second char and concatenate both
15.replace char m with space and now apply the split method without giving paparmets

```

In [15]:

```
s="America"
print(s)
```

```
America
```

In [21]:

```
s="America"
x=s.upper()
print(x)
y=s.lower()
print(y)
b="america"
z=b.capitalize()
print(z)
```

```
AMERICA
america
America
```

In [23]:

```
print(s[:3])
```

```
Ame
```

In [25]:

```
y=s[0:2]+s[-2:]
print(y)
```

```
Amca
```

In [27]:

```
s.index("m")
```

Out[27]:

```
1
```

In [29]:

```
s.split("i")

```

Out[29]:

```
['Amer', 'ca']
```

In [111]:

```
s=s.lower()
print(s.count("a"))
```

```
2
```

In [39]:

```
print(s+" united")
```

```
America united
```

In [40]:

```
print("united "+s)
```

```
united America
```

In [54]:

```

for x in range(len(s)):
    if x%2==0:
        print(s[x])

```

```
A
e
i
a
```

In [64]:

```
s="America"
for x in s:
    asciii = ord(x)
    print(x,asciii)


```

```
A 65
m 109
e 101
r 114
i 105
c 99
a 97
```

In [65]:

```
y=0
for x in s:
    print(x, ord(x))
    y += ord(x)
    print(y)
print(y)
```

```
A 65
65
m 109
174
e 101
275
r 114
389
i 105
494
c 99
593
a 97
690
690
```

In [117]:

```
y=0
for x in range(len(s)):
    print(s[x], ord(s[x]))
    y += ord(s[x])
print(y)
```

```
a 97
m 109
e 101
r 114
i 105
c 99
a 97
722
```

In [97]:

```
print(s.replace("a","x"))
```

```
Americx
```

In [68]:

```
s=s.replace("m","h")
print(s)
```

```
Aherica
```

In [69]:

```
print(s[1]+s[-2])
```

```
hc
```

In [74]:

```
#print(s.replace("h"," "))
s=s.replace("m"," ")
print(s.split(" "))
print(s.split())

```

```
['A', 'erica']
['A', 'erica']
```

In [75]:

```
print(s.split("e"))
print(s.split())

```

```
['A ', 'rica']
['A', 'erica']
```

In [76]:

```
s
```

Out[76]:

```
'A erica'
```

In [13]:

```
#Create a fiction that takes a list and returns the sum of the all the elements exce
def my_function(result):
    list=[1,2,3,4,5,6]
    result=sum(list[0:5])
    return result
my_function(list)

```

Out[13]:

15

In [90]:

```
n=25
```

In [92]:

```
#Create a function that returns whether the give number is even or odd
def odd_even(number):
    check=int(input())
    if check%2==0:
        return "even"
    else:
        return "odd"
odd_even(1)

```

2

Out[92]:

'even'

In [46]:

```
#Create a function that takes in a list and returns two lists – one with even number
def original_list(list):
    a_list=[1,2,3,4,5,6,7,8,9,10]
    l1 = []
    l2 = []
    for x in a_list:
        if x%2==0:
            l1.append(x)
        else:
            l2.append(x)
    print("l1:", l1)
    print("l2:", l2)



original_list(list)
```

l1: [2, 4, 6, 8, 10]
l2: [1, 3, 5, 7, 9]

In [79]:

```
def no_duplicates(list):
    a_list=[1,2,3,4,3,2,6,7]
    l1 = []

    for x in a_list:
        if x not in l1:
            l1.append(x)

    print("The new list is:", l1)

no_duplicates(list)
```

```
The new list is: [1, 2, 3, 4, 6, 7]
```

In [81]:

```
a_list=[1,2,3,4,3,2,6,7]
a_list.count(3)

```

Out[81]:

```
2
```

In [78]:

```
set(a_list)
```

Out[78]:

```
{1, 2, 3, 4, 6, 7}
```

In [80]:

```
Create a function that takes in a list and returns a list in which each element is e
Create a function that takes in a list and returns a list in which each element is e
reate a function that takes in a list and produces a new list in which each element
Create a function that takes in a list and returns a list in which each element is e
Create a function that takes in a list and returns the sum of all elements after eac
Create a function that takes in a list and returns the list of reminders related to
Create a function that takes in a list of elements such that each element is a 2 dig

 This function should  return a list with the same number of elements  but the Digit

Ex–
Input –  [23, 56]
Returns – [32, 65]
```

```
  Cell In [80], line 1
    Create a function that takes in a list and returns a list in which eac
h element is equal to the element and it’s index value
          ^
SyntaxError: invalid syntax
```

In [103]:

```
def divideby_7(given_list):

    result_list=[]
    for x in given_list:
         #result_list.append(x%7)
        temp_x=x%7
        result_list.append(temp_x)
    return result_list


```

In [104]:

```
divideby_7([78,56,49])
```

Out[104]:

```
[1, 0, 0]
```

In [44]:

```
def my_function(i):
    result = []
    for x in range(len(i)):
        result.append(x*i[x])
    return result

a_list=[23,45,67,89,64]
my_function(a_list)
```

Out[44]:

```
[0, 45, 134, 267, 256]
```

In [41]:

```
def my_function(i):
    result=0
    for x in i:
        result += (1/x)*3
    return result



alist=[3,5,6,98]
my_function(alist)
```

Out[41]:

```
2.1306122448979594
```

In [46]:

```
def my_function(i):
    result=[]
    for x in range(len(i)):
        result.append(x+i[x])
    return result
alist=[4,5,7,9,10]
my_function(alist)

```

Out[46]:

```
[4, 6, 9, 12, 14]
```

In [51]:

```
def my_function(i):
    result=[]
    for x in i:
        result.append(x+i.count(x))
    return result

alist=[4,5,7,9,5,7,10]
my_function(alist)
```

Out[51]:

```
[5, 7, 9, 10, 7, 9, 11]
```

In [ ]:

```

```

In [74]:

```
def my_function(i):
    result=0
    for x in str(i):
        result += int(x)
    return result

alist=56
my_function(alist)
```

Out[74]:

```
11
```

In [86]:

```
def my_function(x):
    result=0
    while x>0:
        temp=x%10
        result=result*10+temp
        x=x//10
    return result

my_function(56)
```

Out[86]:

```
65
```

In [88]:

```
n=int(input())
print(str(n)[::-1])
```

```
8546
6458
```

In [45]:

```
takes a numver which returns the sum of those 2 digits 63=9
```

```
  Cell In [45], line 1
    takes a numver which returns the sum of those 2 digits 63=9
          ^
SyntaxError: invalid syntax
```

Type *Markdown* and LaTeX: α^2