In [61]:

```
#Given a two list. Create a third list by picking an odd-index element from the
#first list and even index elements from second.

a=[1,2,3,4,5,6]
b=[1,2,3,4,5,6]
def lis(x,y):
    c=x[1:len(x):2]
    d=b[0:len(y):2]
    c.extend(d)
    return c
p=lis(a,b)
print(p)
```

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

In [6]:

```
#Given an input list removes the element at index 4 and add it to the 2nd position and
x=['a','b','c','d','e','f','g']
y=x.pop(4)
print(y)
x.append(y)
x.insert(2,y)
print(x)
```

```
e
['a', 'b', 'e', 'c', 'd', 'f', 'g', 'e']
```

In [74]:

```
#Given a list slice it into a 3 equal chunks and reverse each list
p=['a','b','c','d','e','f','g','h','i']
q=p[0:3]
r=p[3:6]
s=p[6:len(p)]
print(q)
print(r)
print(s)
for i in range(len(q)-1,-1,-1):
    print(q[i])
for i in range(len(r)-1,-1,-1):
    print(r[i])
for i in range(len(s)-1,-1,-1):
    print(s[i])
```

```
['a', 'b', 'c']
['d', 'e', 'f']
['g', 'h', 'i']
c
b
a
f
e
d
i
h
g
```

In [87]:

```
#Given a two list of equal size create a set such that it shows the element from both
a=[1,2,3,4,5,6]
b=['a','b','c','d','e','f']
a.extend(b)
c={'a':a}
print(c)
```

```
{'a': [1, 2, 3, 4, 5, 6, 'a', 'b', 'c', 'd', 'e', 'f']}
```

In [ ]:

```
#Write a function that takes the base and height of a triangle and return its area.
def areaoftraingle(a,b):
    area=((a*b)/12)
    return area
```

In [90]:

```
#Accept string from the user and display only those characters which are present at an
a=input('Enter the value:')
print(a[0:len(a):2])
```

```
Enter the value:VIGNESH
VIGNESH
VGEH
```

In [223]:

```
#Accept two int values from the user and return their product. If the product is greate
a=int(input('Enter the value:'))
b=int(input('Enter the value:'))
def product(x,y):
    p=x*y
    q=0
    if p>1000:
        q=x+y
    return p,q
M,N=product(a,b)
print("product of 2 given numbers is",M)
print("sum of 2 given numbers is",N)
```

```
Enter the value:2
Enter the value:10
product of 2 given numbers is 20
sum of 2 given numbers is 0
```

In [118]:

```
#Given a list of ints, return True if first and last number of a list is same
a=[1,2,3,4,5,6,7,8,9,8,7,6,5,4,3,2,1]
def comparison(x):
    if(x[0]==x[len(x)-1]):
        b= True
    else:
        b=False
    return b
print(comparison(a))
```

```
True
```

In [5]:

```
#Print the following pattern
n = int(input('Enter the value:'))
def numpat(n):
    for i in range(1, n+1):
        for j in range(1, i+1):
            print( end=" "'*')
            #j=j+1
        print("\r")
numpat(n)
```

```
Enter the value:5
 *
 * *
 * * *
 * * * *
 * * * * *
```

In [191]:

```
#Given a string input Count all lower case, upper case, digits, and special symbols
a=str(input('Enter the string:'))
def count(str):
    i=0
    for x in str:
        i=i+1
    return i
print(count(a))
```

```
Enter the string:Vignesh
7
```

In [193]:

```
#Write a function that takes an integer minutes and converts it to seconds.
minutes=int(input('Enter the minutes:'))
def seconds(x):
    sec=x*60
    return sec
print(seconds(minutes))
```

```
Enter the minutes:5
300
```

In [233]:

```
#Count__number_between_first_and_last_1
a='00000100100000000010000000000000010000000101010101011'
#print(len(a))
#print(a.rfind('1'))
def counting(x):
    i=1
    for m in range(x.find('1'),x.rfind('1')):
        i=i+1
    return i
print(counting(a))

```

```
50
```

In [1]:

```
#Given an input list removes the element at index 4 and add it to the 2nd position and
a=[1,2,3,4,5,6,7,8,9]
print(a)
b=a.pop(4)
print(a)
a[2]=b
a.append(b)
print(a)
```

```
[1, 2, 3, 4, 5, 6, 7, 8, 9]
[1, 2, 3, 4, 6, 7, 8, 9]
[1, 2, 5, 4, 6, 7, 8, 9, 5]
```

In [2]:

```
#Given a string of odd length greater 7, return a string made of the middle three chars
#def MiddleThreeChars(x):
 #    b = x[int(len(x) /2)-1:int(len(x) /2)+2]
  #   return b
   #a = int(len(x) /2)
   #b = x[int(len(x) /2)-1:int(len(x) /2)+2]

a=str(input('Enter the value:'))
if len(a)>4:
    print(a[int(len(a) /2)-1:int(len(a) /2)+2])
else:
    print("middle three characters cannot be printed in this small string")
#print(MiddleThreeChars(a))
```

```
Enter the value:vicky
ick
```

In [10]:

```
#Enter string: yyyyoounnnghyytuio
a='yyyyoounnnghyytuio'
count=0
b=dict()
for i in a:
    count=a.count(i)
    b[i]=count
for j,k in b.items():
    print(j,k)
#print(b)
```

```
y 6
o 3
u 2
n 3
g 1
h 1
t 1
i 1
```