```
##1 Sum of items in list
#create list
list=[1,2,3,6,7,56,43]
sum=0
for i in list:
   sum+=i
print(f"Sum of list is {sum}")

##2 Multiply list items
#create list
list=[2,13,3,40]

#multiply
mul_list=1

for i in list:
   mul_list*=i

print(f"The multiplication of the list is {mul_list}")

##3 Largest
#Create list
L=[0,122,3344,23,2,5,67]

largest=L[0]
for i in range(len(L)):
   if L[i]>largest:
      largest=L[i]
```

```
print(f"The largest number is {largest}")

##4 smallest
#Create list
lst=[2,4,7,78,1,34]

#find smallest number
smallest=min(lst)
print(f"The smallest number is {smallest}")

##7 Duplicates
#Create list
lst=[1,1,24,4,4,18,18,2]
new=list(set(lst))
print(new)

##8 List empty
#Create list
l=[]
if not l:
   print("The list is empty")
else:
    print("The list is not empty")

##9 Clone list
#Create list
orig_lst=[1,3,4,5,6,2,9]
new_lst=list(orig_lst)
print(orig_lst)
```

```
print(new_lst)

##10 print specified list
#Create list
lst=["Red","Green","White","Black","Pink","Yellow"]
print(list)
lst.remove("Red")
lst.remove("Black")
lst.remove("Pink")
lst.remove("Yellow")
print("Updated list= \n",lst)

##18 Permutations list
#Create list
from itertools import permutations as perm
numbers=[1,2,3,6,5,8,9]
perm_list=list(perm(numbers))
for i in perm_list:
   print(i)

##23 random list
#Create list
import random
list=[1,"a",4,"w",32]
print(random.choice(list))

##DICTIONARIES
##2 Add key
num={0:10, 1:20}
```

```
print(num)
num.update({2:30})
print(num)

##9 sum dictionary items
my_dict={"data1":100,"data2":35,"data3":24}
print(sum(my_dict.values()))

##Tuples
##1 create tuple
t=()#empty tuple
t1=(235,12,34,6)#normal tuple
t2=(23,)#single tuple
print(t)
print(t1)
print(t2)

##2 Different data types
tup=eval(input("Enter tuple of different datatypes: "))
print(tup)

##Sets
##1 create set
set={"quit","his","job"}
print(set)

##3 Adding items to a set
set={"wet","dry","cold"}
set.add(10)
```

```
print(set)
```