

## Practice Questions Solutions

1. Write a program that takes two numbers as input from the user and then prints the sum of these numbers.

```
num1 = int(input("Enter number 1 = "))
num2 = int(input("Enter number 2 = "))

# Calculating Total
total = num1 + num2

# Printing Total
print(f"Total is {total}")
```

2. Write a Program that takes Length and Breadth as input from user and print the Area of Rectangle.

```
length = float(input("Enter length of rectangle = "))
breadth = float(input("Enter breadth of rectangle = "))

# Calculating Area
area = length * breadth

# Printing Area
print(f"Area of rectangle is {area}")
```

3. Ask 3 numbers from User and Calculate the Average.

```
num1 = int(input("Enter number 1 = "))
num2 = int(input("Enter number 2 = "))
num3 = int(input("Enter number 3 = "))

# Calculating Average
avg = (num1 + num2 + num3) / 3

# Printing the answer
print(f"Average is {avg}")
```

### 4. Calculate sum of 5 subjects and Find percentage.

```
maths = int(input("Enter marks in maths = "))
english = int(input("Enter marks in english = "))
science = int(input("Enter marks in science = "))
sst = int(input("Enter marks in sst = "))
comp = int(input("Enter marks in comp = "))

# Calculating Total of 5 subjects
total = maths + english + science + sst + comp

# Calculating Percentage
percentage = total / 500 * 100

# Printing the answer
print(f"Total is {total} and percentage is {percentage}")
```

### 5. Same as above

### 6. Ask value in Rupees and Convert into Paise.

```
rupees = float(input("Enter rupees = "))

# Converting rupee into paise
paise = rupees * 100

print(f"{rupees} rupees into paise is {paise}")
```

### 7. Calculate Area of Square by taking Side from User.

```
s = float(input("Enter side of a square = "))
area = s * s

print(f"Area of square with side {s} is {area}")
```

### 8. Ask number of games played in a tournament. Ask the user number of games won and number of games loss. Calculate number of tie and total Points. (1 win= 4 points, 1 tie =2 points)

```
total_games = int(input("Total number of games played = "))
games_won = int(input("Total games won = "))
games_loss = int(input("Total games lost = "))

# Calculating number of games tied
games_tied = total_games - (games_won + games_loss)

# Calculating total points
total_points = (games_won * 4) + (games_tied * 2)

print(f"Total points scored is {total_points}")
```

9. Take two numbers as input from User and print which one is greater or are they equal.

```
num1 = int(input("Enter number 1 = "))
num2 = int(input("Enter number 2 = "))

if num1 > num2:
    print(f"{num1} is greater than {num2}")
elif num2 > num1:
    print(f"{num2} is greater than {num1}")
else:
    print("Both are equal")
```

10. Take three numbers as input from User and print which one is greater or are they equal.

```
num1 = int(input("Enter number 1 = "))
num2 = int(input("Enter number 2 = "))
num3 = int(input("Enter number 3 = "))

if num1 > num2 and num1 > num3:
    print(f"{num1} is greater than {num2}, {num3}")
elif num2 > num1 and num2 > num3:
    print(f"{num2} is greater than {num1}, {num3}")
elif num3 > num1 and num3 > num1:
    print(f"{num3} is greater than {num1}, {num2}")
elif num1 == num2 == num3:
    print("All are equal")
```

11. Take Salary as input from User and Update the salary of an employee
- a. salary less than 10,000, 5 % increment
  - b. salary between 10,000 and 20, 000, 10 % increment
  - c. salary between 20,000 and 50,000, 15 % increment
  - d. salary more than 50,000, 20 % increment

```
salary = float(input("Enter your salary = "))

# Conditions for calculating salaries
finalSalary = salary
if salary < 10000:
    finalSalary = salary + (5 / 100 * salary)
elif salary <= 20000 and salary >= 10000:
    finalSalary = salary + (10 / 100 * salary)
elif salary <= 50000 and salary > 20000:
    finalSalary = salary + (15 / 100 * salary)
elif salary > 50000:
    finalSalary = salary + (20 / 100 * salary)

print(f"Your final salary is {finalSalary}")
```

12. Ask the number from User and print whether the number is Odd or Even.

```
number = int(input("Enter any number = "))

if number % 2 == 0:
    print(f"The number {number} is even")
else:
    print(f"The number {number} is odd")
```

13. A school has following rules for grading system:

- a. Below 25 - F
- b. 25 to 45 - E
- c. 45 to 50 - D
- d. 50 to 60 - C
- e. 60 to 80 - B
- f. Above 80 – A

Ask user to enter marks and print the corresponding grade.

```
mark = int(input("Enter your marks = "))

if mark > 80 and mark <= 100:
    print("You have scored A.")
elif mark > 60 and mark <= 80:
    print("You have scored B.")
elif mark > 50 and mark <= 60:
    print("You have scored C.")
elif mark > 45 and mark <= 50:
    print("You have scored D.")
elif mark > 25 and mark <= 45:
    print("You have scored E.")
elif mark <= 25:
    print("You have scored F.")
else:
    print("Wrong marks")

# ----- OR -----
mark = int(input("Enter your marks = "))

if 80 < mark <= 100:
    print("You have scored A.")
elif 60 < mark <= 80:
    print("You have scored B.")
elif 50 < mark <= 60:
    print("You have scored C.")
elif 45 < mark <= 50:
    print("You have scored D.")
elif 25 < mark <= 45:
    print("You have scored E.")
elif mark <= 25:
    print("You have scored F.")
else:
    print("Wrong marks")
```

14. A student will not be allowed to sit in exam if his/her attendance is less than 75%.

- a. Take following input from user
  - i. Number of classes held
  - ii. Number of classes attended.
- b. Print percentage of class attended
- c. Print Is student is allowed to sit in exam or not.

```
totalClasses = int(input("Total classes conducted = "))
classesAttend = int(input("Total classes attended = "))

# Classes missed with condition
if classesAttend <= totalClasses:
    classesMissed = totalClasses - classesAttend
    attendancePercent = (classesAttend / totalClasses) * 100
    print(f"Percentage of classes attended are {attendancePercent}%")
    if attendancePercent >= 75:
        print("You are allowed to sit in exams")
    else:
        print("You are not allowed to sit in exams")
else:
    print("Classes attended cannot be more than classes held")
```

15. Calculate the purchase amount after deduction criteria on printed price

- a. printed price between 500 and 1000, allow 5% discount
- b. printed price between 1000 and 5000, allow 10% discount
- c. printed price between 5000 and 10000, allow 15% discount
- d. printed price more than 10000, allow 20% discount

```
billAmount = float(input("Enter bill amount = "))

if 0 < billAmount < 500:
    print(f"You got no discount. Your final bill is {billAmount}")
elif 500 <= billAmount < 1000:
    discount = 5 / 100 * billAmount
    print(f"You got 5% discount. Your final bill is {billAmount - discount}")
elif 1000 <= billAmount < 5000:
    discount = 10 / 100 * billAmount
    print(f"You got 10% discount. Your final bill is {billAmount - discount}")
elif 5000 <= billAmount < 10000:
    discount = 15 / 100 * billAmount
    print(f"You got 15% discount. Your final bill is {billAmount - discount}")
elif billAmount >= 10000:
    discount = 20 / 100 * billAmount
    print(f"You got 20% discount. Your final bill is {billAmount - discount}")
else:
    print("Wrong bill amount")
```

16. Print first 10 Natural numbers

```
i = 1

while i <= 10:
    print(i)
    i = i + 1
```

17. Print all the even numbers from 1 to 100.

```
i = 1

while i <= 100:
    if i % 2 == 0:
        print(i)
    i = i + 1
```

18. Find sum of N numbers where N is input from User.

```
n = int(input("Enter any number = "))
total = 0
i = 1

while i <= n:
    total = total + i
    i += 1

print(f"Total is {total}")
```

19. Check whether number entered by User is Prime or Not.

```
n = int(input("Enter any number = "))
totalFactors = 0
i = 1

# Calculating factors
while i <= n:
    if n % i == 0:
        totalFactors = totalFactors + 1
    i += 1

# If only 2 factors, then it is prime
if totalFactors == 2:
    print(f"{n} is a prime number")
else:
    print(f"{n} is a not prime number")
```

20. Check whether number entered by User is Armstrong or not.

**Armstrong number is a number that is equal to the sum of cubes of its digits. For example, 0, 1, 153, 370, 371 and 407 are the Armstrong numbers.**

```
n = int(input("Enter any number = "))
m = n
total = 0

while m > 0:
    digit = m % 10
    total = total + (digit ** 3)
    m = m // 10

if n == total:
    print("It is an armstrong number")
else:
    print("It is not an armstrong number")
```

21. Find Factorial of a number entered by User.

```
n = int(input("Enter any number = "))
total = 1

while n > 0:
    total = total * n
    n = n - 1

print(f"Factorial = {total}")
```

22. Print the first 10 multiples of a number entered by User.

```
n = int(input("Enter any number = "))
i = 1

while i <= 10:
    print(f"{n} X {i} = {n * i}")
    i = i + 1
```

23. Count the number of digits in a number that is entered by User.

```
n = int(input("Enter any number = "))
m = n
totalDigits = 0

while m > 0:
    digit = m % 10
    totalDigits = totalDigits + 1
    m = m // 10

print(f"Total digits = {totalDigits}")
```

24. Write a Program to Reverse a number.

```
n = int(input("Enter any number = "))
m = n

while m > 0:
    digit = m % 10
    print(digit, end="")
    m = m // 10
```

25. Print first 10 Natural numbers.

```
for i in range(1, 11):
    print(i)
```

26. Print all the even numbers from 1 to 100.

```
for i in range(1, 101):
    # Checking if i is even or odd
    if i % 2 == 0:
        print(i)
```

27. Find sum of N numbers where N is input from User.

```
number = int(input("Enter any number = "))
total = 0

for i in range(1, number + 1):
    total = total + i

print(f"Total is {total}")
```

28. Check whether number entered by User is Prime or Not.

```
number = int(input("Enter any number = "))
totalFactors = 0

for i in range(1, number + 1):
    if number % i == 0:
        totalFactors = totalFactors + 1

if totalFactors == 2:
    print(f"{number} is a prime number")
else:
    print(f"{number} is not a prime number")
```



29. Can skip this question.

30. Print multiplication table of a number entered by user.

```
number = int(input("Enter any number = "))

for i in range(1, 11):
    print(f"{number} X {i} = {number * i}")
```

31. Program to display all the prime numbers within a range.

```
number = int(input("Enter any number = "))

for i in range(1, number + 1):
    totalFactors = 0
    for j in range(1, i + 1):
        if i % j == 0:
            totalFactors += 1
    if totalFactors == 2:
        print(f"{i} is a prime number")
```

32. Make the following Patterns:

```
*
**
***
****
*****
```

```
for i in range(1, 6):
    for j in range(1, i + 1):
        print("* ", end=" ")
    print()
```

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

```
for i in range(1, 6):
    for j in range(1, i + 1):
        print(f"{j} ", end=" ")
    print()
```

5  
5 4  
5 4 3  
5 4 3 2  
5 4 3 2 1

```
for i in range(5, 0, -1):  
    for j in range(5, i - 1, -1):  
        print(f"{j} ", end=" ")  
    print()
```

5 5 5 5 5  
4 4 4 4  
3 3 3  
2 2  
1

```
for i in range(5, 0, -1):  
    for j in range(1, i + 1):  
        print(f"{i} ", end=" ")  
    print()
```

1  
2 1  
3 2 1  
4 3 2 1  
5 4 3 2 1

```
for i in range(1, 6):  
    # To print space on left side  
    for j in range(5, i, -1):  
        print(f" ", end=" ")  
  
    # To print numbers  
    for k in range(i, 0, -1):  
        print(f"{k} ", end="")  
  
    print()
```

5  
4 5  
3 4 5  
2 3 4 5  
1 2 3 4 5

```
for i in range(1, 6):  
    # To print space on left side  
    for j in range(5, i, -1):  
        print(f" ", end=" ")  
  
    # To print numbers  
    for k in range(6 - i, 6):  
        print(f"{k} ", end="")  
  
    print()
```

33. Write a program to display following Output.

a. 1 2 3 4 5 6 7 8 9 10

```
for i in range(1, 11):  
    print(i, end=" ")
```

b. 2 4 6 8 10 12 14 16 18 20

```
for i in range(1, 21):  
    if i % 2 == 0:  
        print(i, end=" ")
```

c. 3 6 9 12 15 18 21 24 27 30

```
for i in range(3, 31, 3):  
    print(i, end=" ")
```

d. 4 8 12 16 20 24 28 32 36 40

```
for i in range(4, 41, 4):  
    print(i, end=" ")
```

e. 5 10 15 20 25 30 35 40 45 50

```
for i in range(5, 51, 5):  
    print(i, end=" ")
```

34. Write a Python program to sum all the items in a list.

```
myList = [65, 78, 55, 42, 17, 58, 99]

# Solution 1
total = sum(myList)
print(f"Total of {myList} is {total}")

# Solution 2
total = 0
for i in myList:
    total = total + i
print(f"Total of {myList} is {total}")
```

35. Write a Python program to multiply all the items in a list.

```
myList = [65, 78, 55, 42, 17, 58, 99]

total = 1
for i in myList:
    total = total * i
print(f"Total multiplication of {myList} is {total}")
```

36. Take 10 integer inputs from user and store them in a list and print them on screen.

```
myList = []

# Running loop 10 times
for i in range(1, 11):
    n = int(input("Enter any number = "))
    myList.append(n) # Adding number o the list

print(f"Answer = {myList}")
```

37. Take 20 integer inputs from user and print the following:

- number of positive numbers
- number of negative numbers
- number of odd numbers
- number of even numbers
- number of 0s.

```
myList = []

# Running loop 20 times
for i in range(1, 21):
    n = int(input("Enter any number = "))
    myList.append(n) # Adding number o the list

positive = 0
negative = 0
odd = 0
even = 0
zero = 0

for i in myList:
    if i > 0:
        positive += 1
    elif i < 0:
        negative += 1
    else:
        zero += 1

    if i % 2 == 0:
        even += 1
    else:
        odd += 1

print(f"Positive = {positive}")
print(f"Negative = {negative}")
print(f"Zero = {zero}")
print(f"Even = {even}")
print(f"Odd = {odd}")
```

38. Take 10 integer inputs from user and store them in a list. Again, ask user to give a number. Now, tell user whether that number is present in list or not.

```
myList = []

# Running loop 10 times
for i in range(1, 11):
    n = int(input("Enter any number = "))
    myList.append(n) # Adding number o the list

number = int(input("Enter the number you want to check = "))

if number in myList:
    print("Number is present in the list")
else:
    print("Number is not present in the list")
```

39. Make a list by taking 10 inputs from user. Now delete all repeated elements of the list.

```
myList = []

# Running loop 10 times
for i in range(1, 11):
    n = int(input("Enter any number = "))
    myList.append(n) # Adding number o the list

newList = []

for i in myList:
    if i not in newList: # Check if number is present
        newList.append(i)

print(f"Old list -> {myList}")
print(f"New list -> {newList}")
```

40. Ask user to give integer inputs to make a list. Store only even values given and print the list.

```
myList = []

# Running loop 10 times
for i in range(1, 11):
    n = int(input("Enter any number = "))
    if n % 2 == 0:
        myList.append(n)

print(myList)
```

41. Calculate the sum of all the numbers in a tuple.

```
myTuple = (54, 34, 12, 33, 55, 65, 44)

print(f"Total of tuple is {sum(myTuple)}")
```

42. Create a tuple with some numbers. Ask a random number from user and add that number to the end of the tuple.

```
myTuple = (54, 34, 12, 33, 55, 65, 44)

n = int(input("Enter any number = "))

myList = list(myTuple)  # Converting tuple to list
myList.append(n)

myTuple = tuple(myList)  # Again converting list to tuple
print(myTuple)
```

43. Write a Python program to get the 4th element and 4th element from last of a tuple.

```
myTuple = (56, 89, 77, 65, 32, 12, 45, 33)

print(f"4th element from front is {myTuple[3]}")
print(f"4th element from behind is {myTuple[-4]}")
```

44. Write a Python program to find the repeated items of a tuple.

```
myTuple = (56, 89, 67, 89, 32, 12, 56, 89, 12, 66, 77, 55, 44)
repeatedElements = []

for i in myTuple:
    # Checking if number comes more than 1 time
    if myTuple.count(i) > 1:
        # Checking if number already in repeatedElements
        if i not in repeatedElements:
            repeatedElements.append(i)

print("Repeated values are ")
for i in repeatedElements:
    print(i)
```

45. Write a Python program to remove a number entered by user from a tuple.

```
myTuple = (56, 89, 67, 89, 32, 12, 56, 89, 12, 66, 77, 55, 44)
number = int(input("Enter the number you want to remove = "))

if myTuple.count(number) > 0:
    myList = list(myTuple)
    myList.remove(number)
    myTuple = tuple(myList)
    print(myTuple)
else:
    print("Number does not exist in tuple")
```

46. Write a Python program calculate the product, multiplying all the numbers of a given tuple.

```
myTuple = (4, 3, 2, 2, -1, 18)
total = 1

for i in myTuple:
    total = total * i

print(f"Product of all the numbers = {total}")
```

47. Merge two Python dictionaries into one.

```
dict1 = {"name": "Elon", "age": 55, "gender": "M"}
dict2 = {"address": "Unknown", "phone": 45343}

dict1.update(dict2)

print(dict1)
```

48. Write a python program to find the sum of all items in a dictionary.

```
myDictionary = {"maths": 77, "science": 90, "english": 34,
               "sst": 24, "comp": 99}

total = 0

for i in myDictionary.values():
    total = total + i

print(f"Total of all the values = {total}")
```



49. Write a python program to check whether a given key already exists in a Dictionary.

```
myDictionary = {"name": "Akshay", "gender": "Male", "age": 66,
               "phone": 45454}

a = input("Enter the key you want to check = ")

if myDictionary.get(a) is not None:
    print(f"Key exists and its value is {myDictionary.get(a)}")
else:
    print("Key does not exists")
```

50. Write a Python program to iterate over dictionaries using for loops.

```
myDictionary = {"name": "Akshay", "gender": "Male", "age": 66,
               "phone": 45454}

for k, v in myDictionary.items():
    print(f"Key -> {k} and value -> {v}")
```

51. Write a Python program to generate and print a dictionary that contains a number (between 1 and n) in the form (x, x\*x).

```
myDictionary = {}
n = int(input("Enter any number = "))

for i in range(1, n + 1):
    myDictionary.update({i: i * i})

print("Final answer")
print(myDictionary)
```

52. Write a Python program to map two lists into a dictionary.

```
list1 = ["name", "age", "gender", "totalMarks"]
list2 = ["Ananya", 44, "Female", 10]
myDictionary = {}

for i in range(0, len(list1)):
    myDictionary.update({list1[i]: list2[i]})

print(myDictionary)
```

53. Write a Python program to get the maximum and minimum value in a dictionary.

```
myDictionary = {"maths": 19, "english": 87, "science": 43,
               "sst": 88, "comp": 99}
allMarksList = []

for i in myDictionary.values():
    allMarksList.append(i)

print(f"Maximum value is {max(allMarksList)}")
print(f"Minimum value is {min(allMarksList)}")
```

54. Write a Python program to create a dictionary from a string.

```
x = input("Enter any string = ")
myDictionary = {}

for i in range(0, len(x)):
    myDictionary.update({i: x[i]})

print(myDictionary)
```

55. Write a Python program to print a dictionary in table format.

```
myDictionary = {"maths": 19, "english": 87, "science": 43,
               "sst": 88, "comp": 99}

print("Dictionary in table format")

for k, v in myDictionary.items():
    print("{:10s} {}".format(k, v))
```

56. A Python Dictionary contains List as value. Write a Python program to clear the list values in the said dictionary.

```
myDictionary = {"C1": [54, 66, 77], "C2": [90, 12, 43], "C3":
               [67, 45, 89]}

print(myDictionary)

for i in myDictionary.keys():
    myDictionary[i] = []

print(myDictionary)
```

57. Write a Python program to convert a given dictionary into a list of lists.

```
myDictionary = {1: 'red', 2: 'green', 3: 'black', 4: 'white',  
5: 'black'}  
  
myList = []  
  
for k, v in myDictionary.items():  
    myList.append([k, v])  
  
print(myList)
```

58. Python program to print even length words in a string.

```
n = input("Enter any string = ")  
  
myList = n.split()  
  
for i in myList:  
    if len(i) % 2 == 0:  
        print(i)
```

59. Write a Python program to calculate the length of a string entered by a User.

```
n = input("Enter any string = ")  
  
print(f"Length of string is {len(n)}")
```

60. Write a Python program to reverse a string entered by User.

```
n = input("Enter any string = ")  
  
# -----Solution 1-----  
print(n[-1::-1])  
  
# -----Solution 2-----  
myList = []  
for i in n:  
    myList.append(i)  
  
myList.reverse()  
for i in myList:  
    print(i, end='')
```

61. Count the number of vowels in a string entered by User.

```
n = input("Enter any string = ")
n = n.lower()
total = n.count('a') + n.count('e') + n.count('i') +
n.count('o') + n.count('u')

print(f"Total vowels are {total}")
```

62. Remove the even index characters from the string entered by User.

```
n = input("Enter any string = ")
ans = ''
for i in range(0, len(n)):
    if i % 2 == 0:
        ans += n[i]

print(ans)
```

63. Write a Python program to reverse a string if its length is a multiple of 4.

```
n = input("Enter any string = ")

if len(n) % 4 == 0:
    print(n[::-1])
else:
    print(n)
```

64. Count number of digits in a string entered by user.

```
n = input("Enter any string = ")
total = 0

for i in n:
    if i.isdigit():
        total += 1

print(f"Total digits are {total}")
```

65. Check if the String entered by user is palindrome or not.

```
n = input("Enter any string = ")

if n == n[::-1]:
    print("It is a palindrome")
else:
    print("It is no a palindrome")
```

66. Find all duplicate characters in string entered by user.

```
n = input("Enter any string = ")
myList = []

for i in n:
    if n.count(i) > 1:
        if i not in myList:
            myList.append(i)

print("All duplicates character are")
for i in myList:
    print(i, end=" ")
```

67. Reverse Sort a String entered by user.

```
n = input("Enter any string = ")

myList = list(n)
myList.reverse()

for i in myList:
    print(i, end="")
```

68. Write a Python function to find the Max of three numbers.

```
def maxOfThreeNumbers(a, b, c):
    if a > b and a > c:
        print(f"{a} is greater")
    elif b > a and b > c:
        print(f"{b} is greater")
    elif c > a and c > b:
        print(f"{c} is greater")
    else:
        print("All are equal")

maxOfThreeNumbers(56, 44, 67)
maxOfThreeNumbers(87, 89, 88)
```

69. Write a Python function to sum all the numbers in a list.

```
def sumOfList(myList):  
    print(f"Sum of all numbers are {sum(myList)}")  
  
sumOfList([56, 43, 36, 76])  
sumOfList([12, 78, 63, 66, 55])
```

70. Write a Python function to reverse a string.

```
def reverseString():  
    x = input("Enter your String = ")  
    print(x[-1::-1])  
  
reverseString()  
reverseString()
```

71. Write a Python function that takes a number as a parameter and check the number is prime or not.

```
def checkPrime(n):  
    totalFactors = 0  
    for i in range(1, n + 1):  
        if n % i == 0:  
            totalFactors += 1  
    if totalFactors == 2:  
        print(f"{n} is a prime number")  
    else:  
        print(f"{n} is not a prime number")  
  
checkPrime(55)  
checkPrime(7)  
checkPrime(70)
```

72. Write a Python program to print the even numbers from a given list.

```
def evenList(x):  
    myList = []  
    for i in x:  
        if i % 2 == 0:  
            myList.append(i)  
    print(myList)  
  
evenList([55, 21, 45, 76, 55])  
evenList([67, 55, 11])
```

73. Write a Python function that checks whether a passed string is palindrome or not.

```
def checkPalindrome(s):  
    s = s.lower()  
    if s == s[-1::-1]:  
        print(f"{s} is a palindrome")  
    else:  
        print(f"{s} is not a palindrome")  
  
checkPalindrome("Noon")  
checkPalindrome("moM")  
checkPalindrome("abc")
```

74. Write a Python program to read an entire text file.

```
f = open("hello.txt", "r")  
print(f.read())  
f.close()
```

75. Write a Python program to read a file line by line and store it into a list.

```
f = open("hello.txt", "r")  
myList = f.readlines()  
print(myList)  
f.close()
```

76. Write a python program to find the longest words.

```
f = open("hello.txt", "r")  
allWords = f.read().split()  
  
longestWord = ''  
for i in allWords:  
    if len(i) > len(longestWord):  
        longestWord = i  
  
print(f"Longest word is {longestWord}")  
  
f.close()
```

77. Write a Python program to count the number of lines in a text file.

```
f = open("hello.txt", "r")

print(f"Number of lines are {len(f.readlines())}")

f.close()
```

78. Write a Python program to count the frequency of words in a file.

```
f = open("hello.txt", "r")
allWords = f.read().split()
myWords = []

for i in allWords:
    if i not in myWords:
        myWords.append(i)

for i in myWords:
    print(f"{i} has repeated {allWords.count(i)} times")

f.close()
```

79. Write a Python program to copy the contents of a file to another file.

```
f = open("hello.txt", "r")
content = f.read()
f.close()

f = open("hello1.txt", "w")
f.write(content)
f.close()
```

80. Write a Python program to read a random line from a file.

```
from random import randint

f = open("hello.txt", "r")
allLines = f.readlines()
f.close()

randomLine = randint(0, len(allLines) - 1)

print(f"Random line = {allLines[randomLine]}")
```