1. What is the value of x

x = 0

while (x < 100):

x+=2

print(x)

1. 101
2. 99
3. None of the above, this is an infinite loop
4. 100
5. Using while loop accept numbers until the sum of number is less than 100.

x=0

while x<100:

  print(x)

  x+=1

print("done")

1. Take 10 integers from keyboard using loop and print their average value on the screen.

count = 0

sum = 0.0

number = 1

while number != 0:

  number = int(input(""))

  sum = sum + number

  count += 1

if count == 0:

  print("Input some numbers")

else:

  print("Average and Sum of the above numbers are: ", sum / (count-1), sum)

7

8

9

7

4

4

6

3

7

9

Average and Sum of the above numbers are: 6.545454545454546 72.0

1. Print the following patterns using loop :  
   a.  
   \*  
   \*\*  
   \*\*\*  
   \*\*\*\*  
   b.  
      \*    
    \*\*\*   
   \*\*\*\*\*  
    \*\*\*   
      \*    
   c.  
   1010101  
    10101   
     101    
      1

row=5

for i in range (row):

for j in range(i):

print("\*",end="")

print("")

b)

rows=3

k=2;

g=1

for i in range (0,rows):

for j in range (0,k+1):

print(end="")

k=k-1

for i in range (0,g):

print("\*",end="")

print("")

g=g+2;

k=rows-2

g=3;

for i in range (rows,-1,-1):

for j in range(k,-1,-1):

print(end="")

k=k+1

for j in range(0,g):

print("\*",end="")

print("")

g=g-2;

1. Print multiplication table of given number

For example num = 2 so the output should be

2

4

6

8

10

12

14

16

18

20

number=0

for i in range(0,10):

number=number+2

print(number

1. Given a list iterate it and display numbers which are divisible by 5 and if you find number greater than 150 stop the loop iteration

list1 = [12, 15, 32, 42, 55, 75, 122, 132, 150, 180, 200]

**Expected output:**

15

55

75

150

list1 = [12, 15, 32, 42, 55, 75, 122, 132, 150, 180, 200]

for i in list1:

if i%5==0:

print(i)

if i==150:

break

print("done")

7)Given a number count the total number of digits in a number

For example, the number is **75869**, so the output should be **5**.

num = 75869

count = 0

while num != 0:

num //= 10

count+= 1

print("Total digits are: ", count)

Total digits are: 5

8)Display -10 to -1 using for loop

**Expected output:**

-10

-9

-8

-7

-6

-5

-4

-3

-2

-1

for i in range (-10,0):

print(i)

9)Display a message “Done” after successful execution of for loop

For example, the following loop will execute without any error.

for i in range(5):

print(i)

**Expected output should be:**

0

1

2

3

4

Done!

for i in range(5):

print(i)

print("Done!")

1. Print the following pattern using nested for loop

Expected output

5 4 3 2 1

4 3 2 1

3 2 1

2 1

1

n = 5

k = 5

for i in range(0,n+1):

for j in range(k-i,0,-1):

print(j,end=' ')

print()