**Logprog Loops 1**

**Seatwork**

1. Write a program that will display positive even numbers from 1 to n.

n= int(input(‘enter n: ’))

j=1

while j <= n:

if n % 2 == 0:

print (n)

j+=1

2. Write a program that will display the first n positive odd integers.

n= int(input(enter n: ))

counter = 1

j=1

while counter <= n:

if j % 2!= 0:

print(j)

counter += 1

j += 1

3. Write a program that will display the first n positive odd integers greater than *val*.

val=int(input('enter val: '))

n=int(input('enter n: '))

counter=1

if val % 2 == 0:

val+=1

else:

val+=2

while counter <= n:

if val % 2 != 0:

print(val)

counter+=1

val+=1

4. Write a program that will compute for the sum of the first n positive integers.

Sum=0

counter=1

j=1

n=int(input('enter n: '))

while counter <= n:

Sum=Sum+j

j+=1

counter += 1

print(Sum)

5. Write a program that will compute for the sum of the first n positive odd integers.

Sum=0

counter=1

j=1

n=int(input('enter n: '))

while counter <= n:

if j % 2 != 0:

Sum=Sum+j

counter+=1

j+=1

print(Sum)

6. Write a program that will compute for the number of days from January until *month*. *month* may be any value between 1 -12.

Sum=0

start=1

month=int(input('enter month ended: '))

while start <= month:

if start==2:

days=28

elif start==4 or start==6 or start== 9 or start==11:

days=30

else:

days=31

Sum=Sum+days

start+=1

print(Sum)

7. Write a program that will compute for n! (Factorial of n).

n=int(input('enter n: '))

product=1

j=1

while j <= n:

product= product\*j

j+=1

print(product)

8. Write a program that will allow the user to enter an integer value count, and allow the user to enter count integer inputs. After all inputs are given, the program displays the input values.

count= int(input('enter count: '))

j = 1

while j <= count:

n= int(input('enter input: '))

j += 1

9. Write a program that will allow the user to enter an integer value count, and allow the user to enter count integer inputs. After all inputs are given, the program displays the sum of these input values.

count=int(input('enter positive integers: '))

Sum=0

j=1

while j <= count:

n=int(input('enter number: '))

j+=1

Sum += n

print(Sum)

10. Write a program that will allow the user to continuously input non-negative integer values. Input ends when the user enters a negative value. After all inputs are given, the program displays the input values, the total number of inputs and the sum of all the non-negative inputs.

n=int(input('enter n: '))

count=1

Sum=0

while n > 0:

Sum+=n

n=int(input('enter n: '))

count+= 1

print('total number of inputs:', count)

print('sum of all the non-negative inputs:',Sum)

11. Write a program that will allow the user to continuously input non-negative integer values. Input ends when the user enters a negative value. After all inputs are given, the program displays number of positive even inputs and the sum of all the non-negative even inputs.

n=int(input('enter n: '))

count=0

Sum=0

while n >= 0:

if n % 2 == 0:

Sum+=n

count+= 1

n=int(input('enter n: '))

print('total number of inputs:', count)

print('sum of all the non-negative even inputs:',Sum)

12. Write a program that will allow the user to enter a positive integer value. The program displays the digits of this value in reverse order.

Enter a number: 1234 Enter a number: 34530

Display in reverse: 4321 Display in reverse: 03543

place=''

n= int(input('Enter a number: '))

while n > 0:

digit= n%10

convert= str(digit)

place= place+convert

n= n//10

print('Display in reverse:'place)

**Homework**

1. Write a program that will allow the user to enter a positive integer value. The program displays the number of digits of the input.

Enter a number: 1234 Enter a number: 34530

Number of digits: 4 Number of digits: 5

n=int(input('Enter a number: '))

count=0

if n==0:

count=1

while n > 0:

n = n//10

count += 1

print('Number of digits:',count)

2. Write a program that will allow the user to enter a positive integer value. The program displays in reverse the even-valued digits.

Enter a number: 1234 Enter a number: 5397131

Display even-digits in reverse: 42 Display even-digits in reverse:

place=''

n= int(input('Enter a number: '))

while n > 0:

digit= n%10

if digit%2==0:

convert= str(digit)

place= place+convert

n= n//10

print('Display even-digits in reverse:',place)

3. Write a program that will allow the user to enter a positive integer value. The program computes for the reverse of the input.

Enter a number: 1234 Enter a number: 34530

Reverse: 4321 Reverse: 3543

count= -1

place= 1

n= int(input('Enter a number: '))

result=0

while n > 0:

digit= n%10

result= result + digit\*place

place= place/10

count += 1

n= n//10

final= result\*10\*\*count

print(int(final))

4. Write a program that will allow the user to enter a positive integer value. The program computes for the reverse of the input containing only the even-valued digits.

Enter a number: 1234 Enter a number: 34530

Reverse (even digits only): 42 Reverse (even digits only): 0

count= -1

place= 1

n= int(input('Enter a number: '))

result=0

while n > 0:

digit= n%10

if digit %2==0:

result += digit\*place

place /= 10

count += 1

n //= 10

final= result\*10\*\*count

print(int(final))