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In [2]: #1.Calculate average of 5 numbers.

total = 0
for i in range(5):
    a = int(input("Enter the number"))
    total = total + a
print("Total",total)

Enter the number4
Enter the number5
Enter the number6
Enter the number7
Enter the number8
Total 30

In [3]: #2.Check whether number is even or odd.

num = int(input("Enter the number"))

if num%2==0:
    print("Number is even")
else:
    print("Number is odd")

Enter the number3
Number is odd

In [6]: #3.Take a year and check whether it is leap year or not

year = int(input("Enter the year"))

if(year%4==0 and year%100!= 0 or year%400==0):
    print("The year is a leap year")
else:
    print("The year isn't a leap year")

Enter the year2000
The year is a leap year

In [8]: #4.Take a number and check whether it is zero, positive or negative.

a = int(input("Enter the number"))

if a<0:
    print("Thia number is negative")
elif a>0:
    print("This number is positive")
else:
    print("Given number is zero")

Enter the number0
Given number is zero

In [9]: #5.Take 2 numbers and display greatest number. (Also check equal number condition)

a = int(input("Enter 1st number"))
b = int(input("Enter 2nd number"))

if a>b:
    print("Greter number :",a)
elif b>a:
    print("Greter number :",b)
else:
    print("Both numbers are equal")

Enter 1st number23
Enter 2nd number45
Greter number : 45

In [25]: #6.Take a number and find factorial of that number.

num = int(input("Enter the number"))

if num < 0:
    print("Sorry, factorial does not exist for negative numbers")
elif num == 0:
    print("The factorial of 0 is 1")
else:
    factorial=1
    for i in range(1,num + 1):
        factorial = factorial*i
    print("The factorial of",num,"is",factorial)

Enter the numbers5
The factorial of 5 is 120

In [26]: #7.Write a program to swap 2 numbers using third variable.

a = int(input("Enter the number"))
b = int(input("Enter the number"))

print("Given numbers a and b are:",a,b)

c=a
a=b
b=c

print("After sawapping numbers a and b are",a,b)

Enter the number4
Enter the number5
Given numbers a and b are: 4 5
After sawapping numbers a and b are 5 4

In [27]: #8.Take 2 numbers and find smallest number.

a = int(input("Enter 1st number"))
b = int(input("Enter 2nd number"))

if a>b:
    print("smaller number :",b)
elif b>a:
    print("smaller number :",a)
else:
    print("Both numbers are equal")

Enter 1st number5
Enter 2nd number7
smaller number : 5

In [28]: #9.Take a number check if a number is less than 100 or not. If it is less than 100 then check if it is odd or even.

num = int(input("Enter the number"))

if num>100:
    print("Given number is greter than 100")

else:
    if num%2==0:
        print("Given number is less than 100 and even")
    else:
        print("Given number is less than zero and odd")

Enter the number57
Given number is less than zero and odd

In [29]: #10.Take a number to print the square of a number if it is less than 10.

num = int(input("Enter the number"))

if num<100:
    print("Number is less than 100 and square of number is :",num*num)
else:
    print("Number is greter than 100")

Enter the number11
Number is less than 100 and square of number is : 121

In [30]: #11.Take a number and check whether it is zero, positive or negative using nested IF...ELSE statement .

num = float(input("Enter a number: "))
if num >= 0:
    if num == 0:
        print("Zero")
    else:
        print("Positive number")
else:
    print("Negative number")

Enter a number: 0
Zero

In [31]: #12.Take 3 numbers and find greatest number using nested IF...ELSE statement.

# input three integer numbers
a=int(input("Enter A: "))
b=int(input("Enter B: "))
c=int(input("Enter C: "))

# conditions to find largest
if a>b:
    if a>c:
        g=a
    else:
        g=c
else:
    if b>c:
        g=b
    else:
        g=c

# print the largest number
print("Greater = ",g)

Enter A: 4
Enter B: 5
Enter C: 6
Greater = 6

In [33]: #13.Take 3 numbers and find smallest number using logical operator.

def smallest(x, y, z):
    c = 0

    while ( x and y and z ):
        x = x-1
        y = y-1
        z = z-1
        c = c + 1

    return c

x=int(input("Enter A: "))
y=int(input("Enter B: "))
z=int(input("Enter C: "))

print("Minimum of 3 numbers is",
      smallest(x, y, z))

Enter A: 5
Enter B: 4
Enter C: 6
Minimum of 3 numbers is 4

In [34]: #14.Write a program to swap 2 numbers without taking third variable.

x=int(input("Enter x: "))
y=int(input("Enter y: "))

x = x + y
y = x - y
x = x - y
print("After Swapping: x =", x, " y =", y)

Enter x: 3
Enter y: 4
After Swapping: x = 4 y = 3

In [35]: #15.Take starting number and ending number from the user and print following series.

num = int(input("Enter stating number"))

while num>=0:
    print(num)
    print(" ")
    num=num-3

Enter stating number30
30

27

24

21

18

15

12

9

6

3

0

In [ ]:
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