

User as float, print half of the that number

```
user_number = float(input('enter
the number:'))
print (user_ num ber/2)
```

list, print all element from the list using loop

```
# for loop solution
mylist = [1,2,3 ,4,5]
for number in mylist:
    pri nt( number)

# while loop solution
mylist = [1,2,3 ,4,5]
num = 0
while number < len(my list):
    pri nt( myl ist (nu -
mber))

    number = number+1
```

print Fibonacci series between 0 to 50 using loop

```
num1 = 0
num2 = 1
fibonacci = num1 + num2
myoutput = " 0,1"
while fibonacci <50:
    myo utput = myoutput +
" ," + str(fi bon acci)
    num1 =num2
    num2 =fibonacci
    fib onacci = num1 + num2
print( myo utput)
```

The areaOfEllipse using pir2r1 (two parameter)

```
def
areaOfEllipse(radius1,radius2):
    pi = 3.1415
    area = radius1radius2
    return area
areal= areaOf Ell ips e(2,3)
print( areal)
```

User_input

```
user_input = input("Enter a value: ")
```

Comparing Values:

When you compare two values, the result is a Boolean

(True or False) E.g. 2 == 3 is False

☞ == is equal to

☞ != is not equal to

☞ < less than

☞ <= less than or equal to

☞ > greater than

☞ >= greater than or equal to

☞ and

☞ or

☞ not

True or anything is always True

False and anything is always False

Combining Strings (Concatenation)

```
"hi" + "there" == "hithere"
```

```
"hi" * 5 == "hihihihihi"
```

Converting between different data types:

```
word = str(3) #converts 3 to a string "3"
```

```
num = int("3.5") #converts "3.5" to an
integer 3
```

```
num = float("3") #converts "3" to a float 3.0
```

The output of follwing code

```
Y = True
print (not y or 2 < 3) output =
False
```

print alleven numbers from 1 100 using while loop

```
number = 0
while number < 100:
    number =number + 2
    print (number)
```

use a for loop to print the following

```
0
01
012
0123
01234
01234
mystring = " "
for number in range(5):0
    mys tring = mystring +
str(nu mber)
    print (mystring)
# range(2) = 01
```

receive input from user, convert integer, print , 5

```
number = int(input("Enter a
number:"))
print( num*5)
```

output of the program

```
mystring = ""
count = 0
while count < 5:
    mystring = mystring +
str(count)
    print(mystring)
    count = count + 1

0
01
012
0123
01234
```

Data types

String - a list of characters e.g. "abc123-\$%^", or
empty string ""

Integer - whole numbers, and negative numbers e.g. -5,
0, 2

Floating Point - decimal numbers e.g. 1.5,
2.0, -2.99

Boolean - True or False

Printing values:

```
print("hello", "there") #displays hello there
print("hello" + "there") #displays hellothere
```

Comments

hashtag – everything after # is a comment
not code

```
"""
Double quote - Multi-line comment,
everything in
between three double quotes is a
comments
"""

""" Single quote - Multi-line comment,
everything in
between three single quotes is a comments
"""
```

the loop doesn't go forever

```
gameover = 0
while (gameover ==0):

    print( " hello")
    gameover = 1
```

Receive number from user, number is determine by 3

```
user_number = int(input("Enter
the number:"))
remainder = user_number%3
if remainder == 0:
    print (user_number, "is
divisible by 3")
else:
    print (user_number, "is
not visible by 3")
```

MultiplicationTable

```
def multiplicationTable():
    user_number = input( " -
Enter the number :")
    number = int(user_
number)
    count = 1
    While count <=10:
        print( number,
" " ,count , "=",count)
        count = count + 1
```

Making number is negative, Zero or positive

```
user_number = int(input("Enter a
number"))
if user_number > 0:
    print( user_number -
er, "is positive")
elif user_number < 0:
    print( user_number -
er, "is negative")
else:
    print( user_number -
er, "is equal to zero")
```

print all even number from -100 to -1 (while loop)

```
user_number= -100
while user_number< -1:
    print( user_number)
    user_number= user_n -
umber + 2
```

positive integer,negative print HM odd, even

```
evencount = 0
oddcount = 0
while True:
    number = int(input -
("Enter a number "))
    if number < 0:
        print ("Even
number " ,evencount)
        print ("odd
number " , oddcount)
        break
    else:
        if (number%2) ==
0:
            evencount = evencount + 1
        else:
            oddcount = oddcount + 1
count = oddcount + 1
```

Basic Math Operations:

+ addition, - subtraction
/ divide with answer as a float. E.g. 5/2 ==
2.5
// divide with answer as an integer. E.g. 5//2
== 2
* multiply
exponent. E.g. 2 power 3 == 2 3
% modulo. Gives the remainder when
dividing
e.g. 33 % 10 == 3
All math operations use the sa

print out fifth character from the variable

```
myword = "hellothere"
print( hel lot her e[4])
```

convert integer and multiply by 10 loop

```
while True:
    use r_n umber = int(in -
put ("enter a number ")
    number= int(us er_ num -
ber)*10
    pri nt( number)
```



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