User as float, print half of the that number

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

list,print all element from the list using loop

```
# for loop solution
mylist = [1,2,3,4,5]
for number in mylist:
    print(number)
# while loop solution
mylist = [1,2,3,4,5]
num = 0
while number < len(mylist):
    print(mylist(number))
    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:
    myoutput = myoutput + "," +
str(fibonacci)
    num1 =num2
    num2 =fibonacci
    fibonacci = num1 + num2
print(myoutput)
```

The areaOfEllipse using pir2r1 (two parameter)

```
def areaOfEllipse(radius1,radius2):
    pi = 3.1415
    area = pi radius1radius2
    return area
area1= areaOfEllipse(2,3)
print(area1)
```

User_input

user_input = input("Enter a value: ")

User_input

user_input = input("Enter a value: ")

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

Combining Strings (Concatenation)

"hi" + "there" == "hithere"
"hi" * 5 == "hihihihihi"

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

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
mystring = ""
for number in range(5):0
    mystring = mystring +
str(number)
    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)
```

By **Chutima Rakyu**
cheatography.com/chutima-
rakyu/

Published 20th March, 2016.
Last updated 20th March, 2016.
Page 1 of 2.

output of the program (cont)

```
    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,"=",numcount)
        count = count + 1
```

Making number is negative, Zero or positive

```
user_number = int(input("Enter a
number"))
if user_number > 0:
    print(user_number,"is
positive")
elif user_number < 0:
    print(user_number,"is
negative")
else:
    print(user_number,"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_number + 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
```

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(hellothere[4])
```

convert integer and multiply by 10 loop

```
while True:
    user_number =
int(input("enter a number")
    number= int(user_number)*10
    print(number)
```

By **Chutima Rakyu**
cheatography.com/chutima-rakyu/

Published 20th March, 2016.
Last updated 20th March, 2016.
Page 2 of 2.