

### Function

`input` to write something to ask or tell the user  
( )

`print` to write out on the screen  
( )

`int` ( turn to number to be able to do math or )  
( to make the number to integer.

`float` turn the number into decimal point  
( )

`str` ( ) a list of things

`len` ( the length of the word )

`int` = integer

`str` = string

`len` = length

### Statements

#### If Statement

`if` :

`elif` :

`else`:

#### While Loop

`while` :

#### For Loop

`for` var in list:

#### Counting For Loop

`for` i in range(1,101 ): 1-100

`elif` = else if

### Circle area

```
#Ask the user for a radius of a circle
user_radius = input("What is a radius of a circle?")
```

```
#Convert the given radius to a floating point
radius = float(user_radius)
```

```
#Make a variable called pi
pi = float(3.1415)
```

```
#Calculate the area of the circle using
exponents
area = pi(radius*2)
```

```
#Display the area of the circle to the user
print ("The area of the circle is", area)
```

### Guess word game

```
import random
```

```
list = ['a', 'b', 'c', 'd', 'e']
```

```
chance = 3
```

```
score = 0
```

```
print (list)
```

```
while chance != 0:
```

```
random_item = random.choice(list)
```

```
user = input("guess a word ")
```

### Guess word game (cont)

```
if user== random_item:
```

```
print ("That's correct!")
```

```
score = score + 100
```

```
print ("Score:", score)
```

```
else:
```

```
if user_input not in guesslist:
```

```
print ("Sorry, that isn't even in the list!")
```

```
chance = chance - 1
```

```
print ("Chance Remaining:", chance)
```

```
else:
```

```
print ("Wrong choice!")
```

```
chance = chance - 1
```

```
print ("Chances:", chance)
```

```
if chance == 0:
```

```
print ("The word is", random_item)
```

```
print ("Your score", score)
```

### Triangle

```
def areatriangle(base,height):
```

```
area = (base*height)/2
```

```
return area
```

```
base = float(input(" Enter the base of the
triangle"))
```

```
height = float(input(" Enter the height of the
triangle"))
```

```
print ("The area of the triangle is",
areatriangle(base,height))
```

```
def volumeprism(area,height):
```

```
volume= area*height
```

```
return volume
```

```
prism_height = float(input("Enter the height of
the prism"))
```

```
print("The volume of the prism is",
volumeprism(areatriangle(base,height),prism_hei
ght))
```



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### double it

```
def doubleIt (number): # dont have to call it
doubleIT, CALL WHATEVER U WANT
return number*2
```

```
print (doubleIt(2))
print (doubleIt("Hello"))
```

```
myvar = doubleIt(doubleIt(3)) #same as
doubleIt(6)
```

```
print(myvar)
```

### Vocabulary

variable a value and can be change

string a list of character such as number, letter and symbols

integer whole number or counting number

float decimal number

syntax grammar or structure of lauguage

value returns a list of all the values available in a given dictionary.

loop going over and over again repeating

modulo remainder

Boolean truth or false

### Random

```
import random include the random program
```

```
random.choice( pick a random item on your
) list
```

**import = put the program(somebody wrote it) in**

### Convert to binary

```
numb = int(input("Write down another
number,I'll turn it into binary."))
```

```
binary_string = "
```

```
while numb>0:
print (numb)
remainder = numb%2
binary_string = str(remainder)+ binary_string
numb= numb//2
```

```
print ("The binary number is",binary_string)
```

### Print Name

```
name = "tim GIRARD"
```

```
print (name.upper()) → TIM GIRARD
print (name.lower()) → tim girard
print (name.capitalize()) → Tim girard
print (name.title()) → Tim Girard
```

### sort list

```
Sort fruit list
fruits = [] #an empty list
```

```
for number in range(5):
user_fruit = input("Please enter a fruit")
fruits.append(user_fruit)
```

```
print ("Size of fruit list is", len(fruits))
```

```
fruits.sort()
```

```
for fruit in fruits:
print ("Fruit: ", fruit)
```

### Palindrome

```
while True:
```

```
word = input("Enter a word")
```

```
if word == "quit":
```

```
break
```

```
print ("The lenght of the word is",len(word))
```

```
reverse="
```

```
index = 0 #set to 0 because that is the first item
in the list
```

```
while int(index)<len(word):
reverse=word[index] + (reverse)
index=int(index)+1
```

```
Palindrome = False
```

```
print ("|" + reverse + "|" + word + "|")
```

```
def isPalindrome(word):
```

```
if word == reverse:
```

```
print (True, ", ",word, "is a palindrome")
```

```
else:
```

```
print(False, ", ",word, "is not a palindrome")
```

```
palindrome = isPalindrome(word)
```

### print in seperated line

```
mylist=[1,2,3,4,5]
```

```
for number in mylist:
```

```
print(number)
```