Function

Print()	Show information that you want on the screen
float()	make number into decimal number
str()	list of letter, number and symbols
int() [input]	get information from user
int() [integer]	number to integer number

addition

number + number	math - addition
string + string	combine together

Guess word game

```
import random
#Create a list
guesslist = ['grape', 'orange', 'chloroplast',
'ribosome', 'lipstick']
chance = 3
score = 0
print (guesslist)
while chance != 0:
random_item = random.choice(guesslist)
user_input = input("Please guess a word: ")
if user_input == 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 ("Sorry, wrong choice!")
chance = chance - 1
print ("Chance Remaining:", chance)
if chance == 0:
print ("The word was", random_item)
print ("The score is", score)
```

Math

=	equal
!=	not equal
>	more than
<	less than
>=	more than or equal
<=	less than or equal

Vocabulary

string * number	list of character such as number, letter and symbols
float number	number in decimal
variable	hold a value and can be change
integer number	whole number or counting number
syntax	grammar or structure of language
input	gain information from user
print	show the information
value	
loop	
mudolo	
blank	
comment	
code	

Sort word per line

```
mystr = "Hello"
letter_num = 0
while letter_num < len(mystr):
print (mystr[letter_num])
letter_num = letter_num + 1
H
e
l
l
o
```

Example

```
Print (2) – integer
Print (2.5) – floating point
Print ("Hello") – string
Print (mystr) – variable
Print (mystr,"Hi",2,1.0) -- commas
mystr = "Hi"
mystr ← name
"Hi" ← value can change
print (int(1.5)) → 1
print (int("2")) → 2
print (float(1)) → 1.0 anything to a float
Modulo/Remainder %
print (4%2) → 0
print (30%7) → 2
```

multiplication and exponent

number ** number	math - exponent
number * number	math - multiply
string * number	combine that string

Naming Convention

```
Rule for giving name
- letter
- numbers
- underscore _
Valid name
- _myStr
- my3
- Hello_there
Invalid name
- 3my="hi" -- cannot start with number
```

Countdown Machine

```
user_number = input("What number do you
want to count down? ")
number = int(user_number)
countdown_string = ' '
while number > 0:
countdown_number = countdown_string +
str(number) + " "
number = number - 1
#print(number)
print (countdown_string)
```

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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
```

Area of Circle

```
"""
Python Intro Assignment #2
name
student number
"""
#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)
```