## Python note! Cheat Sheet

by dragonjeen via cheatography.com/25753/cs/6872/

| 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 $\quad$ turn the number into decimal point <br> () <br> str( ) a list of things <br> len ( the length of the word <br> ) <br> int = integer <br> str = string <br> 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) |

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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| radius | Reverse |
| :---: | :---: |
| ```def area_circle(r): pi=3.1415 area= pi r*2 return area radius= input("Enter the radius of the circle") radius=float(radius) print("The area of the circle is", area_circle(radius))``` | while True: <br> word = input("Please enter a word") <br> index $=0$ <br> reverse $=$ ' $'$ <br> while int(index) < len(word): <br> reverse = word[index] + (reverse) <br> index $=$ int(index) +1 <br> print ("Reverse: ", reverse) |
| Symbol | Countdown |
| $==\quad$ equal to |  |
| $!=\quad$ not equal | number $=\operatorname{int}($ input("Write a number, I'll |
| $<\quad$ less than | countdown to one. $)$ ) |
| > more than | while number>0 : |
| <= less than or equal to | print(number) |
| $>=\quad$ more than or equal to | number = number-1 |
| = is only for variable not for doing math | sort word |
| Symbol II | H |
| + combine / plus | e |
| - minus | 1 |
| / division | I |
| multiplication | 0 |
| ** power | mystr = "Hello" |
| \% remainder | letter_num = 0 |
|  | ```while letter_num < len(mystr): print (mystr[letter_num]) letter_num = letter_num + 1``` |

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| Calculator |
| :---: |
| ask =input("Write down two number and an operation in a form of.... main(?,?,?), example: main( 2,3, sum), start a new line") |
| def sum $(a, b)$ : |
| return $a+b$ |
| def diff( $\mathrm{a}, \mathrm{b}$ ): |
| return a-b |
| def mult(a,b): |
| return a * b |
| def $\operatorname{div}(\mathrm{a}, \mathrm{b})$ : |
| return $\mathrm{a} / \mathrm{b}$ |
| def main(num1, num2,op): <br> if (op == "sum"): <br> print(sum(num1,num2)) <br> elif (op == "difference"): <br> print(diff(num1,num2)) <br> elif (op == "product"): <br> print(mult(num1, num2)) <br> elif (op == "division"): <br> print(div(num1,num2)) |


| function |
| :--- |
| def bacon(text): \# text is a parameter, |
| pararmeter is what u give to the function |
| print ("" + str(text)+ ""') |
| return |
| bacon("me") |
| bacon("yay") |
| def bacon2(text,decoration): |
| print (decoration +str(text) +decoration) |
| return |
| bacon2("hello", "++++++++") |
| bacon2("me", "-=-=-=-=-=-=-") |
| bacon2("<3", "<<<<<<<<<<<<<") |
| bacon2("hello") \# miss decoration |

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| double it |  |
| :---: | :---: |
| def doublelt (number): \# dont have to call it doubleiT, CALL WHATEVER U WANT return number*2 |  |
| print (dou print (doub | blelt(2)) <br> blelt("Hello")) |
| myvar = doublelt(doublelt(3)) \#same as doublelt(6) |  |
| 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 |  |

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| Random |  |
| :--- | :--- |
| import random | include the random program |
| random.choice( pick a random item on your <br> ) |  |

import = put the program(somebody wrote it) in


## 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)

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## 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)

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