

Vocabulary	Function (cont)	Math	Basic Calculator (cont)
variable something that can change	float() convert string or integer number into decimal number	== equal to != no equal to < less than > more than <= less than or equal to >= more than or equal to def define function	return diff(num1, num2) elif operation=="div": return div(num1, num2) else: print ("No operation")
string a list of characters	str() convert value to word(s)		
integer whole number/number	# comment, no effect		
number/number	range() the list of number between two numbers		
float The number in decimal	while create loop with some condition.	/ divide with answer as a float. e.g. 5/2=2.5	
syntax grammar/structure of language	for create loop with no condition	// divide with answer as an integer. e.g. 5//2=2	
modulo find the remainder		** exponent	
boolean true/false			
argument A value passed to a function (or method) when calling the function.	0 01 0123 01234		
parameter A named entity in a function definition that specifies an argument that the function can accept.	mystring = "" for items in range(5): mystring = mystring + str(items) print (mystring) #or mystring = "" index = 0 while index < 5: mystring = mystring + str(index) print (mystring) index = index + 1		
Function		Naming Convention	
print() displays information on the screen		Invalid name	
input() receive info from the user		- --cannot start with 3my="hi" number "	
len() show the number of words in the string		-first name="hi" -first-name	
int() convert string or decimal number into integer number			
		Basic Calculator	
		def calc(num1, num2, operation): if operation=="sum": return sum(num1, num2) elif operation=="product": return product(num1, num2) elif operation=="diff":	
			return diff(num1, num2) elif operation=="div": return div(num1, num2) else: print ("No operation")
			def sum(a, b): myvar1 = a+b return myvar1
			def product(a, b): myvar2 = a*b return myvar2
			def diff(a, b): myvar3 = a-b return myvar3
			def div(a, b): if b!=0 : return (a//b) else: print ("Error")
			print (calc(10,0,"div")) print (calc(1,2,"sum")) print (calc(4,2,"diff")) print (calc(9, 3,"div")) print (calc(2, 12,"product"))



Fibonacci	even and odd	Guessing Game (cont)	While loop list (cont)
<pre>index = 0 index2 = 0 Fibo = "" while index < 50: if index == 0: Fibo = Fibo + str(index) index = index + 1 elif index > 0: Fibo = Fibo + ", " + str(index) index = index + index2 index2 = index-index2 print (Fibo)</pre>	<pre>even = 0 odd = 0 while True: mynum = int(input("Enter the positive number: ")) if mynum > 0: if mynum%2 == 0: even = even + 1 elif mynum%2 != 0: odd = odd+1 elif mynum < 0: break print (even, (" of them are even.")) print (odd, (" of them are odd."))</pre>	<pre>if user_guess == random_item: print ("That's correct!") score = score + 100 print ("Score: ",score) random_item = random.choice(mylist) else: chance = chance - 1 print ("Chance Remaining: ",chance) if user_guess in mylist: print ("Sorry, wrong choices") else: print ("Sorry, that is not even in the list !") print ("Final Score: ",score) print ("Game Over!The word was",random_item)</pre>	<pre>index = index + 1</pre>
Reverse Word		While loop list	Max value in list
<pre>while True: word = input("Please enter a word") index = 0 reverse = "" while int(index) < len(word): rev erse = word[index] + (reverse) ind ex = int(index) + 1 print("Revers e: ",reverse)</pre>	Guessing Game	<pre>whileList = ['Guy','Pop','Pat','Kim','Cliff','Anon'] index = 0 while index < len(whileList): print (whileList[index])</pre>	<pre>#Example 1 def max2(num1, num2): maxvalue = num1 if num2 > maxvalue: maxvalue = num2 return maxvalue print (max2(3,5)) #Example 2 def max3(num1, num2, num3): maxvalue = num1 if num2 > num3 > maxvalue: maxvalue = num2 elif num3 > num2> maxvalue: maxvalue = num3 return maxvalue print (max3(3,5,9)) #Example 3 def maxlist(list): maxvalue = list[0] for num in list: if maxvalue < num: maxvalue = num return maxvalue print (maxlist(range(0,56)))</pre>



area of circle calculation

```
def areaOfCircle(r):  
    if r <= 0:  
        return "Error"  
    pi = 3.1415  
    area = pi*r*2  
    return area  
  
user_radius =  
float(input("Enter the  
radius: "))  
radius =  
float(user_radius)  
print ("the area of the  
circle  
is",areaOfCircle(radius))
```

palindrome (cont)

```
if  
isPalindrome(word) == True  
:  
    palindrome =  
(word + str(" is a  
palindrome."))  
else :  
    palindrome =  
(word + str(" is not a  
palindrome."))  
  
print(palindrome)
```

palindrome

```
def isPalindrome(word):  
    index = 0  
    while index <  
1/2*len(word):  
        if word[index]  
== word[len(word)-1-  
index] :  
            index =  
index+1  
        else :  
            return False  
    return True  
while True:  
    word = input("Enter  
your word: ")  
    if word ==  
str("quit"):  
        break  
    else:
```



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