

Python Functions

A function is a block of code which only runs when it is called.

You can pass data, known as parameters, into a function.

A function can return data as a result.

In Python a function is defined using the `def` keyword:

```
def my_function():  
    print("Hello I am a function")
```

```
def my_function():  
    print("Hello I am a Artak")  
my_function()
```

Arguments

Information can be passed into functions as arguments.

Number of Arguments

```
def my_function(fname, lname):  
    print(fname + " " + lname)  
  
my_function("Emil", "Sargsyan")
```


Keyword Arguments

You can also send arguments with the *key = value* syntax.

This way the order of the arguments does not matter.

```
def child(child2, child1):  
    print("The youngest child is " + child2)  
  
my_function(child1 = "Emil", child2 = "Jon")
```

Default Parameter Value

```
def myfunction(country = "Armenia") :  
    print("I am from " + country)
```

```
myfunction("Sweden")  
myfunction("India")  
myfunction()
```

Passing a List as an Argument

Python

```
def my_function(food):  
    for x in food:  
        print(x)  
  
fruits = ["apple", "banana", "cherry"]  
  
my_function(fruits)
```

Return Values

```
def myfunction(x):  
    return 5 * x  
  
print(myfunction(3))
```


Pass

Python

```
def myfunc():  
    global x  
    x = "fantastic"  
  
myfunc()  
  
print("Python is " + x)
```

`*args` `**kwargs`

Lambda

```
add = lambda x, y: x + y  
print(add(2, 5))
```

1. Calculator

2. Write a python program
to find max of two
numbers.

3. Write a python program
to sum all numbers.

4. Write a python program to multiply all numbers.

5. Write a python program to sum all letter and number in your string.

6. You are given a program that takes all 3 passengers ages as inputs and inserts them in a list. Complete the program so that If it finds a value less than 16, it breaks the loop and outputs "Too young! ". If the age requirement is satisfied, the program outputs "Get ready!".