

Solution2

October 23, 2015

```
In [1]: def fibfunc(n=20,show_ratio=False):
```

```
fib=[]
ratio=[]
if n>0:
    fib.append(0)
if n>1:
    fib.append(1)
if n>2:
    for i in range(2,n):
        fib.append(fib[i-1]+fib[i-2])
        ratio.append(float(fib[i])/float(fib[i-1]))
if not show_ratio:
    return fib
else:
    return fib,ratio
```

```
print fibfunc()
print fibfunc(0)
print fibfunc(1)
print fibfunc(True)
print fibfunc(show_ratio=True)
print fibfunc(15, True)
```

[0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181]

[]

[0]

[0]

([0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377, 610, 987, 1597, 2584, 4181], [1.0, 2.0, 1.5,

([0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, 233, 377], [1.0, 2.0, 1.5, 1.6666666666666667, 1.6, 1.6,

In []: