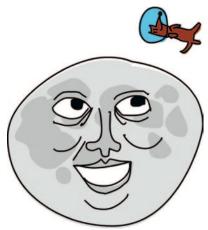
# Chapter 7: Recycling Your Code with Functions and Modules

Wednesday, March 7, 2018 11:34 AM

Give the following examples a try, to experiment with creat- ing your own functions. The answers can be found at <a href="http://python-for-kids.com/">http://python-for-kids.com/</a>.

#### #1: Basic Moon



## Weight function

In Chapter 6, one programming puzzle was to create a for loop to determine your weight on the moon over a period of 15 years. That for loop could easily be turned into a function. Try creating a function that takes a starting weight and increases the weight amount each year. You might call the new func- tion using code like this:

>>> moon\_weight(30, 0.25)

## #2: Moon Weight function and Years

Take the function you've just created, and change it to work out the weight over different periods, such as 5 years or 20 years. Be sure to change the function so that it takes three arguments: ini- tial weight, weight gained each year, and number of years:

>>> moon\_weight(90, 0.25, 5)

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#### #3. IVIOON Weight Program

Instead of a simple function, where you pass in the values as parameters, you can make a mini-program that prompts for the values using sys.stdin.readline(). In this case, you call the function without any parameters at all:

>>> moon\_weight()

The function will display a message asking for the starting weight, then a second message asking for the amount the weight will increase each year, and finally a message asking for the num- ber of years. You would see something like the following:

Please enter your current Earth weight

45

Please enter the amount your weight might increase each year

0.4

Please enter the number of years

12

Remember to import the sys module first before creating your function:

>>> import sys