Practice Problems for Functions

Here are a few problems you can use to practice writing functions on paper.

1. Write a function PrintStars() that prints a string of 5 "*" characters.

        def main():
                PrintStars()
                print "bob"
                PrintStars()
    will print

    *****
    bob
    *****

2. Write a function PrintNStars(n) that prints a string of n "*" characters.

        def main():
                PrintNStars(8)
                print "bob"
                PrintNStars(3)
    will print

        ****
        bob
        ***

3. Write a function Stars(n) that returns a string of n "*" characters.

        def main():
                decoration = Stars(5)
                print "%s bob %s" %(decoration, decoration)
    will print
    ***** bob *****

4. Write a function IsLetter(s) that returns True if s is a single letter in the alphabet (upper case or lower case) and returns False for any other input. So IsLetter('a') returns True, while IsLetter('$') returns False

5. Write a function ISQR(n) that returns the largest integer whose square is less than or equal to number n. If we have the main function

        def main():
                x = ISQR(24)
                print x

this will print 4. You can assume that n is a positive number. Do this with a loop, not with the Math library's square root function.

6. Write a function PrintFunny(s) that prints string s if it does not contain the letter 'b', and prints "bob" if s does contain the letter 'b'. For example

     def main():
          PrintFunny("Oberlin College")
          PrintFunny("Marvin Krislov")

will print
bob
Marvin Krislov