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.

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
   ```python
def main():
    PrintFunny( “Carmen Ambar” )
    PrintFunny( “Donald Trump” )
```
   will print
   ```
   bob
   Donald Trump
   ```

7. Write a function NoSpaces(s) that returns a string just like string s but with all of the blank spaces removed. So print( NoSpaces( “How does this work?” ) ) will print “Howdoesthiswork”