1) What happens if you multiply a number by a string? Try 5 * "=". Store the result in variable \texttt{S}.
Now what happens if you multiply \texttt{S} by 10 and then print it?

2) Given a text string, write a program to count the number of vowels.
   
   Eg: text: Georgetown University output: 8

3) You have written an essay for school, and it has to be at least five pages long. But your essay is only 4.5 pages long! You decide to use your new Python skills to make your essay longer by spacing out the letters. Write a function that takes a string and a number of spaces to insert between each letter, then print out the resulting string.

4) Write a function to swap the values of two colors, for example, swap the red value with the blue value.

5) Write a function to mirror an image vertically, that is the mirror is placed at the bottom of the picture. That is from (0, height) to (width, height)

6) Write a function to duplicate an image. That is same image appears twice side by side.

7) Write a function that pinkifies white in a picture. Input a picture, then check each pixel to see if the red, green, and blue are all over 100. If so, set that pixel to pink.

8) Write a program that takes a list of integers and prints its average.

   Eg: [1,2,3,4,5,6,7,8,9,10] output: The average is = 5.5

9) Write a function that will scale up just part of the picture. Try making Barbara’s (barabara.jpg) nose longer.

10) Using nested loops, write a function that reduces red by 50\% in the top third of a picture and clears blue in the bottom third.