
A general rule of writing functions is that the only output a function should display to the screen is error messages. It can output variables when you are in the process of developing it, but these should be turned off once it is working correctly. The decision of whether or not to display the outputs of a function should be left to the user and handled in the routine that called the function.

You can have a single driver script to test all the functions you write in this assignment.

- 1) (1 pt) A student wrote a function that does something with two inputs, **a** and **b**. Their function started out like

```
function [out] = myfun(a,b)
a = input('Input a: ');
b = input('Input b: ');
.....
.....
```

Explain why this is not correct.

- 2) (1 pt) A student wrote a function that does something with two inputs, **a** and **b**. Their function started out like

```
function [out] = myfun(a,b)
clear
.....
.....
```

Explain why this is not correct.

- 3) (3 pts) Write function that accepts inputs of the height and base of a triangle and outputs the triangle area. You should also write a driver script to test your function for some test case of your choosing. The driver script should display the triangle area, not the triangle function.
- 4) (4 pts) Write a function that accepts the inputs a and b and outputs $a + b$, $a - b$, ab and $\frac{a}{b}$. Write a driver script to test your function for a test case of your choosing.
- 5) (4 pts) Write a function that will accept an integer n as input and outputs $n!$. Write a driver script to test your function for $n = 7$.