Week 2 Take-Home Exercises

1) Read the following code. What will happen when it runs?

```
Def print_message_to_user(message):
        print("Get ready for a secret message!")
        print(message)


print_message_to_user("I love python!")
print_message_to_user(66536)
```

2) The following code doesn't work! Diagnose the bugs and show how you'd fix them.

a.
```
def say_hello(name)
        print("Hello ", name)
```

b.
```
def ask_a_lot_of_question():
    first_answer =  input("How old are you ")
    print(first_answer)
    second_answer = input("What color is your shirt? ")
    print(second_answer)
```

c.
```
def do_some_multiplying(first_number):
        print("This function can multiply by " + first_number)
        second_number = input("What do you want to multiple? ")
        product = first_number * second_number
        print("The product is " + product)
```

d.
```
def get_information_from_user():
    name = input("What is your  name?  ")
    age = input("How hold are you? ")
    color = input("What is your favorite color? ")

def print_information_from_user():
    information = name + " is " + age + " years old and likes the color " + color
    print(information)

get_information_from_user()
print_information_from_user()
```

3) Bonus! f(x) = x^2 + 4x -2 is a mathematical function. What is the input? What is the output? Write a python function that takes in x and prints out f(x).