COEN 164 LAB 2

TA: Emma Allegrucci (eallegrucci@scu.edu)
Office Hours: Monday 1:30-2:00pm

1. Write a method that can take a variable length of parameters, and in this method, print out the information about the number of parameters, and the value of each parameter.

2. The following is code to call a method

```
def mysterious_total(subtotal, tax, discount)
  subtotal + tax - discount
end

mysterious_total(100, 10, 5)
```

You can see that when calling the method, we have no idea what the meaning of the parameters of "mysterious_total(100, 10, 5)" are without looking at the definition.

   a) To make it more clear, change the above code so that "keyword parameters are used. Also provide the default values for each parameter.

   b) Another advantage of keyword parameters, is you can switch the order of the parameters without affecting the behavior of the method. Try to switch the order of the arguments when making the method call and see the result.

   c) Use double splat ** in the method definition. A ** argument will be a hash that contain any uncollected keyword parameters passed to the method.

3. Define a Dog class, the object of this class will have the name of the dog, the breed, and birthday. Then create several objects with different attributes. Also the object of this class has the method "bark" (print barking string "ruff"), and the dog attributes can be checked or set.

4. Define a Box(2 dimensional) class. it will have:
   1) attributes: weight and height,
   2) instance methods:
      - fill: to fill the internal area of the box with a specified character
      - flip: flip the box 90 degree (just switch dimension)
      - draw: actually draw the box with the above attributes

Example output

b1 = Box 10x4, fill: (spaces)
b2 = Box 5x12, fill: $
b3 = Box 3x3, fill:@

b1:
```
+--------+
|        |
|        |
+--------+
```

b2:
```
+---+
|$$$|
|$$$|
|$$$|
|$$$|
|$$$|
|$$$|
|$$$|
|$$$|
|$$$|
|$$$|
+---+
```

b3:
```
+-+
|@|
+-+
```

b2 flipped and filled with #:
```
+——————+
|##########|
|##########|
|##########|
+——————+
```

b2 = Box 12x5, filled with #