**Week 1 - Thursday - Homework**

**Instructions:**

What happens? Does it work? Does it not work? Why? What could be changed to make it work?

1. Print x
   1. What happens? --- ERROR
      1. Traceback (most recent call last):

File "<stdin>", line 1, in <module>

NameError: name 'x' is not defined

* 1. It does not work because the example called a variable named x, but x had not yet been defined. There are two easy solutions. One would be to encase the x in quotes. This would make it a string, as opposed to an undefined variable. The other solution would be to first define a variable called x then print it to the console.

1. x = 4  
     
   y = 'y'  
     
   print x + y
   1. Traceback (most recent call last):  
       File "<stdin>", line 1, in <module>  
      TypeError: unsupported operand type(s) for +: 'int' and 'str'
   2. It doesn’t work because you can not concatentate a string and a number. You can only contatenate strings to strings. Or you can add a number to a number.
   3. For ease, I would just remove the quotes from y
2. x = 'Hello'  
     
   y = 'World'  
     
   print x + y
   1. Yes, it worked.
   2. You are allowed to concatenate to strings together.
3. x = 'x'  
     
   y = 'x'  
     
   print x + y
   1. Yes, it worked!
   2. You are allowed to concatenate two strings together.
4. x = x  
     
   y = 'y'  
     
   print x + y
   1. No idea why this worked.
5. x = 'x'  
     
   y = x + 'y'  
     
   print x + y
   1. Yes, it worked. The first line creates a string variable named “x” and the second line creates a variable, ‘y’, that concatenates the expression of x with the string ‘y’. The last line prints x which is ‘x’ and concatenates the expression for y which is xy. So the line printed the console becomes xxy.
6. x = 'Hello'  
     
   y = 4  
     
   print x / y
   1. ERROR
      1. Traceback (most recent call last):  
          File "<stdin>", line 1, in <module>  
         TypeError: unsupported operand type(s) for /: 'str' and 'int'
   2. This did not work because you cannot divide a string by an integer.
7. x = 'Hello'  
     
   y = 'World'  
     
   print x \* y
   1. Traceback (most recent call last):  
       File "<stdin>", line 1, in <module>  
      TypeError: can't multiply sequence by non-int of type 'str'
   2. This did not work because you cannot multiply string by a string.