Discussion 11: Python I

Learning a Not-So-Foreign Language

1. Translate the following expressions from Snap! to Python:

```
foo = 5

set too to 5

change too by 5

set foo to foo

length of word

join hello world ()
```

2. Translate the following blocks of code from Snap! to Python line by line:

```
a.

+is+word +long?+

if length of word > 5

report true

else

report false
```

```
b. + distinct + string + for | = 1 to length of string - 1

for | = | + 1 to length of string |

if letter | of string = letter | of string |

report | falso |

report | frue |
```

3. What is the difference between print and return?

More Practice

- 1. Define the function Fizzbuzz so that it does the following:
 - Print out the numbers 1 through 100
 - If the number is divisible by 3, print "fizz".
 - If it is divisible by 5, print "buzz".
 - If it is divisible by 15, print "fizzbuzz".

2. Write a function that counts the number of times a given letter appears in a given string. Try writing this iteratively and recursively! Finish one way? Try the other way!

```
def find_num_letters(letter, str):
    def find_num_letters(letter, str):
```

Errors Galore

We wrote a function called floor divide, which divides a number, big_num, by another number, small_num, and then reports the answer rounded down to the nearest whole number. Unfortunately, there are a lot of syntax errors! Identify and fix all of the bugs in the code below.

```
def floor_divide(big_num, small_num):
    if small_num = 0:
        return You cannot divide by zero!
    current_num = small_num
    num_times = 0
    while current_num <= big_num:
        current_num = current_num + small_num
        num_times = num_times + 1
    report num times</pre>
```