20.180:Assignment1

Solutions and General Comments

- Answers to Q0:
  - False, because == checks for equality
  - 4
  - True, because we previously set a equal to b, so now a and b are equal
  - 1 2 3 4 (each of these will be on a new line)
  - 2 3 4 5 (each of these will be on a new line)

- Answer to written Q1 section:
  - Under certain conditions, the bacteria will express the mRFP protein encoded by the ORF. *(-2pts for not noting that the protein made is mRFP)*

- One possible way of writing the code for assignment 1 is provided in the file labeled 'Code.'
  - Common mistakes for Q1: not printing the concatenated sequence to the screen or output file as the question asked *(-5pts)*, naming files incorrectly *(-5pts)*, not concatenating by calling the keys in the dictionary (you would get the incorrect answer for any other input file; *-10pts*)
  - The file used to grade Q1 is provided and is labeled 'Test file.' Use this txt file as the file you read in for Q1 and compare your answer with the answer found with the Q1q2code.txt provided above.
  - Common mistakes for Q2: not checking for in-frame TAA's <50bps from an ATG and excluding them from your list of ORFs *(-3pts)*, not stopping at the first in-frame TAA *(-4pts)*, finding the first TAA for each ATG and not continuing to look for another TAA if the first is not in-frame, index out of range *(-2pts)*, not printing ORFs to output file correctly *(-2pts)*
    - This test sequence was used to grade Q2: taaatgxxatgxxxatgxxxxxxxxxxxxxxxxxxxxxxxxxxxtaaxxxxxxxxxxxxxxxxxxx