1-3) See file “PatelRavi\_pset1\_1-3.py”

4)

a) You get 0. This happens because default division in python is integer. Fix it by casting one/both number(s) as float (i.e., 5.0/7, 5/7.0, 5.0/7.0), or “from \_\_future\_\_ import division”, which allows for float results on integer division.

b) Python is 0-indexed, thus asking for index 5 looks for the 6-th element of the list, which does not exist.

c) KeyError, since the key hasn't been assigned in the dictionary.

d) List's cannot be used as keys since they are mutable objects. Keys need to be able to be hashed, and expected not to change, thus a list cannot be used. However, a tuple can be used in place of a list, since it cannot be modified once created, and thus can be reliably hashed.

5)

a) My original script was done with a for loop.

b) See file “PatelRavi\_pset1\_5b.py”

6)

See file “PatelRavi\_pset1\_6.py”

7)

See file “PatelRavi\_pset1\_7.py”

8)

See file “PatelRavi\_pset1\_8.py”