**CS150**

**Worksheet 10 – Dictionaries**

Determine the output of the print function where the dictionary gives the populations of the four US states in millions.

statePop = {'IA':3.1, 'MN':5.5, 'WI':5.8, 'MO':6.1}

1. print(statePop['WI']) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. print(statePop.get('MO', 'absent')) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. print(max(statePop)) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. statePop.update({'IA':3.3, 'MO':6.2})

print(statePop['MO']) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. total = 0

for item in statePop.values():

total += item

print('{0:.2f}'.format(total))

1. for x in sorted(statePop):

print(x, statePop[x])

1. Rewrite the code below using a dictionary instead of an if statement.

def determineRank(years):

if years == 1:

return 'Freshman'

if years == 2:

return 'Sophomore'

if years == 3:

return 'Junior'

else:

return 'Senior'

**Use the dictionary topHitters below for questions 8 – 11.**

topHitters = {"Gehrig":{"atBats":8061, "hits":2721},

"Ruth":{"atBats":8399, "hits":2873},

"Williams":{"atBats":7706, "hits":2654}}

1. Write a function displayBattingAverage(topHitters) to produce batting averages of the three baseball players, as shown.

def displayBattingAverage(topHitters):

Gehrig 0.338

Ruth 0.342

Williams 0.344

1. What output is displayed by the following code?

del topHitters[max(topHitters)]

del topHitters[min(topHitters)]

print(topHitters)

1. Write a function displayAvgNumberOfHits(topHitters) to produce the average number of hits by the three players, as shown. Hint: convert hits to a list

def displayAvgNumberOfHits(topHitters):

The average number of hits: 2749.3

1. Write a function mostHits(topHitters) to produce the most hits by any of the three players, as shown. The code should use the max function. Hint: convert hits to a list.

The most hits by one player: 2873

def mostHits(topHitters):