Assignment 4 Rubric

1.1

#10 points for show correct answer

# if the answer is not correct, then 9

# 3 point for using correct expression like below

# 3 point for using numpy

# 3 points for using a list comprehension

1.2

# 1 point for using numpy

# 9 point for show correct answer

# if the incorrect answer is given then use this rules

# 3 points for using the correct expression or formula

# 3 points for printing the value from a variable or computed amount.

2.1

# 4 point for using the correct gradient desc function from lecture

# what to look for – to know where the 4points derive from.

# look for the x, y, iteration and rate input parameter to a loop or function.

# (internal 1 point) - Look for the y\_hat prediction from using a current m and b and x

# (internal 1 point) - Look for the mse calculation.

# (internal 1 point) - calculation of the derivatives.

# (internal 1 point) - for defining a function

# 6 point for modifying it to look for the lowest mse in the results without visual inspection.

2.2

# total 15 points.

# there are two ways that are acceptable.

Way 1

# 5 points for showing the actual points

# 5 points for showing the predicted points

# 5 points for showing a title, legend, or x or y axis labels.

# another way to do it

# 5 points for using a linear regression model from sklearn

# 5 points for using a line for the prediction.

# 5 points for plotting the actual points

Question 2.3

# 7 points for correctly using step and iteration numbers

# 8 points for showing the best mse.

Question 2.4

**# 10 points total (the breakdown below)**

**# 5 points for trying several different values of iterations and rate.**

**# 4 point for showing the best value**

**# 1 for showing the actual tests for those other variations.**