CMPUT 366 Why 2 Assignment 2

Answer 1:
The value is non zero because in the second example we use indice values 4.0 and 2.0 which lie very close to 4.0 and 2.1 since they share index values there is some learning done beforehand before 4.0 and 2.1 are done. Therefore we have none zero values for the fourth point. If you remove the example with 4.0 and 2.0 you will see that 4.0 and 2.1 will have a before value of 0.

Answer 2:
The MSE does not decrease below 0.01 due to the noise function used in conjunction with the target function. This random function takes from a normal distribution from 0 to 0.1 and this value keeps the MSE stable above 0.01 due to the variation it adds to the MSE. This is due to the difference now caused by the noise function between the target function and the learnt value even after 10000 episodes.