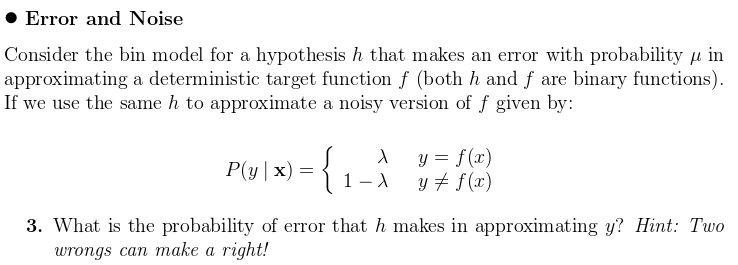
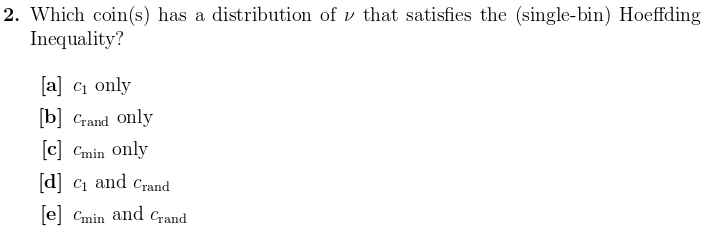


For the program with which this was generated, refer to <https://github.com/cmishra/Learning-from-data-coursework/tree/master/HW1%20-%20PLA%20Implementation>.

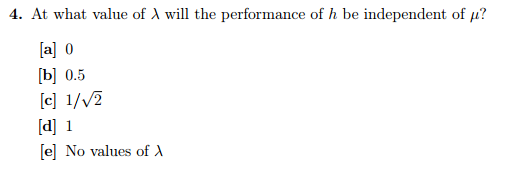




is the original (deterministic) target function. is the new, stochastic target function that returns the probability assigned to event given input based upon the distribution of defined above. is an arbitrary hypothesis function.

Recall we are given:

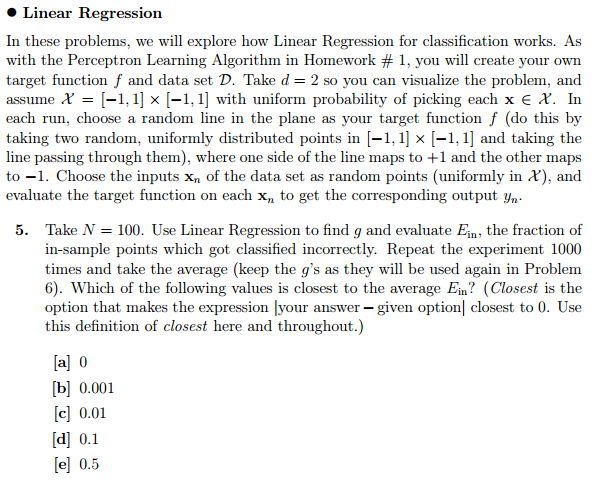
Derivation:



Recall from the last question:

This can be rearranged to:

Since we have the added at the end, we can say that regardless of the value of will always matter.



My implemented program had an average of 0.3551 (significantly different than the 0.28 that the verification program achieved, but with both the answer is the same). The implemented program can be found at <https://github.com/cmishra/Learning-from-data-coursework/blob/master/hw2Programs/src/LinRegImplementation.java>.