

COS 511: Theoretical Machine Learning

Hint on HW#6, problem 2a

Spring, 2018

Consider the cases $y_t = 0$ and $y_t = 1$ separately. In each case, show that at most a fraction $4^{-\ell_t}$ of the surviving experts survive to the next round, where ℓ_t is the probability that the learning algorithm makes a mistake on round t .