# CS 1511 Homework 25

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**51 a.** u1 = 0 u2 = 1 u3 = 1

**52.** NP = L-PCP(log n)
NP = {L: there is a logspace machine M s.t x $\in$ L iff $\exists$ y : M accepts (x,y) }.
L-PCP(log n) = {L : there is a logspace machine M s.t x $\in$ L iff $\forall$ y : M accepts (x,y) with probability 1 and x $\notin$ L iff $\forall$ y : M rejects (x,y) with probability $\geq 1/2$}
We need to show two things

NP $\subseteq$ L-PCP(log n)

L-PCP(log n) $\subseteq$ NP