CS 1511 Homework 19

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Wednesday, March 27

36.

AM = { (M, p, q, I) | ∃ TM M, ∃ polynomial p ∃ polynomial q and input I such that:
M runs in poly-time
if x ∈ L, then $Pr_{y \in \{0,1\}^{p(n)}}(\exists z \in \{0,1\}^{q(n)} M(x,y,z) = 1) \geq 2/3$
if x ∉ L, then $Pr_{y \in \{0,1\}^{p(n)}}(\forall z \in \{0,1\}^{q(n)} M(x,y,z) = 0) \geq 2/3$
MAM = The class of languages that can be proved by a 3-message protocol in which the prover sends one message.

L ∈ MAM
L ∈ AM