

Name: _____

1. Define the class NP.

Solution: A predicate L is in NP if there is a 2-variable polynomial predicate $R(x, y)$ and a polynomial $q(n)$ with *computable* coefficients such that

$$L(x) = \exists y \left[|y| \leq q(|x|) \wedge R(x, y) \right].$$