

Problem 1: Rule Systems (50 points)

Engaged in a debate regarding reverse psychology and self-fulfilling prophecy, the 6.034 TAs decide to write a Rule-Based system to determine, once and for all, whether Neo should be able to determine if he is The One in the original film 'The Matrix.'

Rules:

P0	IF (OR '(?x) is a noob', '(?x) is disenchanted') THEN '(?x) visits The Oracle'
P1	IF '(?x) visits The Oracle' THEN '(?x) picks The One'
P2	IF (AND '(?x) is a noob', '(?x) visits The Oracle') THEN 'The Oracle says (?x) is not The One', '(?x) is disenchanted'
P3	IF (AND (OR '(?x) is disenchanted', '(?x) is a noob'), 'The Oracle says (?x) is not The One') THEN '(?x) practices Kung Fu'
P4	IF (AND '(?x) is disenchanted', '(?x) loves (?y)') THEN '(?x) proclaims love for (?y)')
P5	IF (AND 'The Oracle says (?x) is not The One', '(?y) proclaims love for (?x)', '(?y) picks The One') THEN '(?x) is The One'

Assertions:

- A0: (Neo is a noob)
- A1: (Trinity is disenchanted)
- A2: (Trinity loves Neo)
- A3: (Trinity proclaims love for Neo)