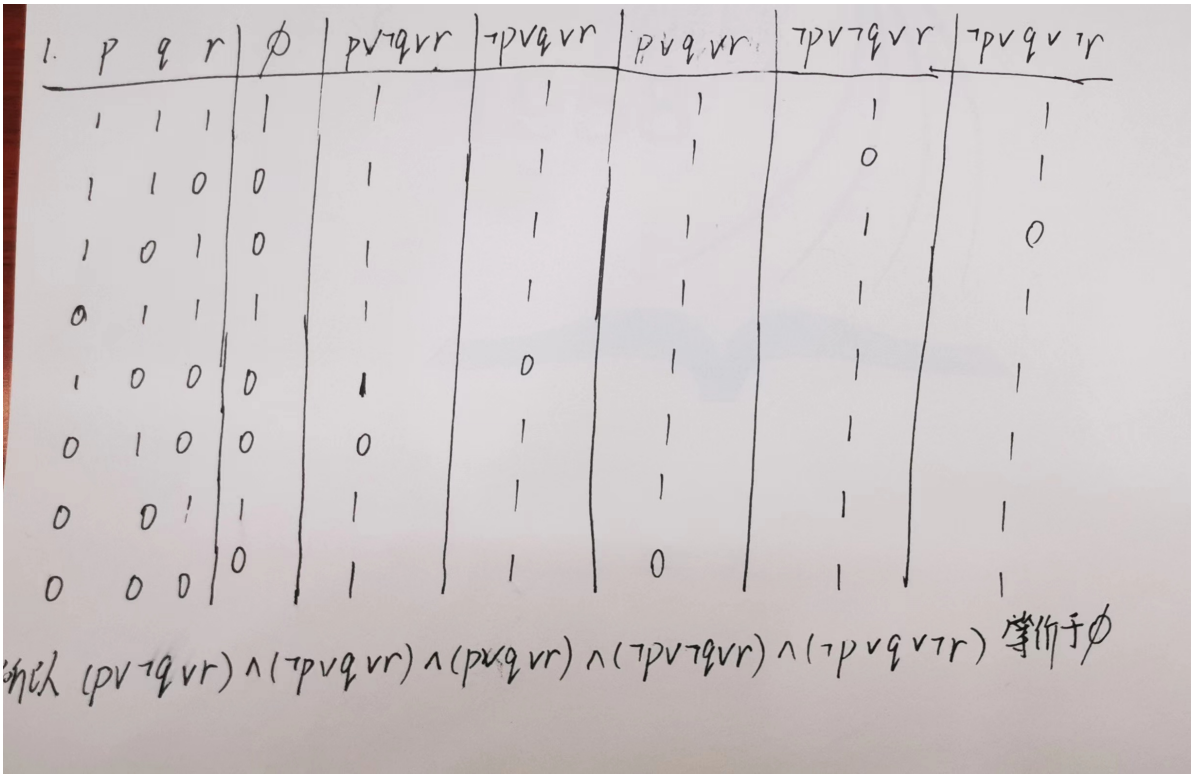
PB19051175_梁峻滔_HW5

1. Construct a formula in CNF



2. Apply HORN algorithm to the following formulas

(1) (p ∧ q ∧ s → ⊥) ∧ (q ∧ r → p) ∧ (⊤ → s)

Marked: ⊤ s return 'satisfiable'

(2) (p5 → p11) ∧ (p2 ∧ p3 ∧ p5 → p13) ∧ (⊤ → p5) ∧ (p5 ∧ p11 → ⊥)

Marked: ⊤ p5 p11 ⊥ return 'unsatisfiable'

(3) (⊤ → q) ∧ (⊤ → s) ∧ (w → ⊥) ∧ (p ∧ q ∧ s → ⊥) ∧ (v → s) ∧ (⊤ → s) ∧ (r → p)

Marked: ⊤ q s return 'satifiable'