**Problem 10.1** Unification

**Answer:**

Given that,

*--------------------------------------------------------------*

*--------------------------------------------------------------*

So, pairs of terms are unifiable, where most general unifiers are

*-----------------------------------------------------------------------------------------------------------------*

*-----------------------------------------------------------------------------------------------------------------*

So, pairs of terms are not unifiable, because and are not unifiable.

**Problem 10.2** First-Order Resolution

**Answer:**

Given that,

Formula:

Negate:

[CNF]

Substituting bound variables:

Resolution:

**Problem 10.3** First-Order Tableaux

**Answer:**

Given that,

Formula:

First-Order Tableaux:

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