**Tutorial 4**

**1 The Crop Allocation Problem**

The variables would be s1, s2, s3 and s4

Domains would be:

domain(s1, [cabbage, kale, broccoli, cauliflower])

domain(s2, [cabbage, kale, broccoli])

domain(s3, [kale]),

domain(s4, [kale, broccoli]).

The constraint is that s1  s2  s3  s4.

**2 First-Order Logic**

1) .

2).

3).

4).

5).

**3 Most General Unifier (MGU)**

1) x/A, y/B, z/B.

2) Unification fails as *q*(*A, A*) cannot be unified with *q*(*A, B*).

3) x/John, y/John.

4) Unification fails because we are not able unify *y* and father(*y*) because of the occurs check.