**Page 108,Q 11:**

1. ε ∈ L1, when n,m,x = 0 -> {((ab)0 · c)0 · a0} = ε
2. abc ∈ L2, when n = 1 -> {a · b1 · c · b0} = abc
3. R(L2) = {bn-1· c· bn· a | n>0}
4. R(L3) = {w | w contains bc} and L4{w | w contains bbc}

R(L3) ∩ L4 = R(L3) because R(L3) ⊃ L4