① قاعده تجزیه :

فرض │1. A → BC

┌ 2. BC → B (Reflexive Rule)
│ 3. A → B (Transitivity Rule on 1 & 2)
└ 4. BC → C ┐ Same as 2 & 3
  5. A → C ┘

قاعده اجتماع :

فرض ┌ 1. A → B
    └ 2. A → C

3. C → C (Reflexive Rule)

4. A → AC (Augmentation Rule on 2)

5. AC → BC (Augmentation Rule on 1)

6. A → BC (Transitive Rule on 4 & 5)

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② سطوح نرمال سازی را دوره میکنیم

1NF → No mixed values
2NF → No Partial Dependencies
3NF → No Transitive Dependencies (...)
BCNF → No Dependencies for super keys (for all A→B, A must be a super key)

Zip → {City, State}   Zip is not   → Not BCNF ⎱ Solution:
                      a superkey   ⎰ {City, State} dependent to Zip
                                                └ Zip = (zipcode, city, state)
{Street, City, State} → Zip {Street, City, State}   ADDRESS =
                             ────────────→   (Name, Street, Zipcode)
                             is not a superkey