

$$x^y = x[x, y] \quad (\text{i})$$

$$xy = yx[x, y] \quad (\text{ii})$$

$$[x, y]^{-1} = [y, x] \quad (\text{iii})$$

$$[x, y]^z = [x^z, y^z] \quad (\text{iv})$$

$$[xy, z] = [x, z]^y[y, z] \quad (\text{v})$$

(اتحاد های هال)

$$[x, yz] = [x, z][x, y]^z \quad (\text{vi})$$