Generalized pigeonhole principle - if n pigeons and h holes, then some hole has at least n/h pigeons.

Graphs - G = (V,E), vertices and edges

Deg -(a) = 1   deg -(b) = 4   deg -(c) = 0   deg -(d) = 2
Deg +(a) = 2   deg +(b) = 2   deg +(c) = 2   deg +(d) = 1