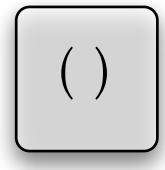
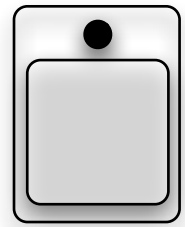
a graph
G

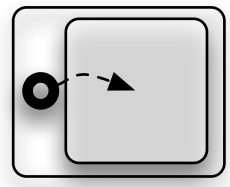
is built from
::=



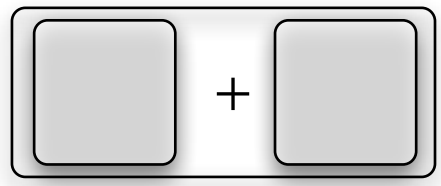
the empty graph
0



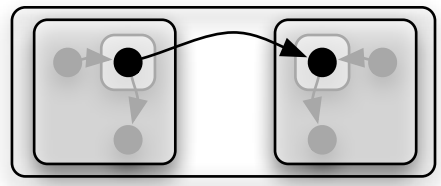
adjoining a vertex to a graph
v.G



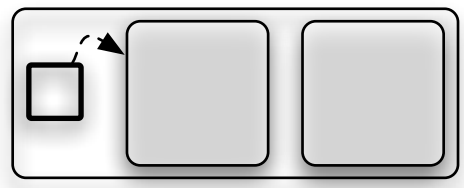
choosing a vertex in a graph
"pointing" a graph
let x = v in G
generalizes to{ x in v(G) | condition }



combining unconnected graphs
G1 + G2



connecting two pointed graphs
e(let x1 = v1 in G1, let x2 = v2 in G2)
anonymously :
(let x1 = v1 in G1, let x2 = v2 in G2)
({ x in v(G) | condition }, { x' in v(G') | condition' })



choosing a subgraph
let X = G in G'
generalizes to { X in P(G) | condition }