Trees

Definition: Given a tree $t$ and a node $u \in dom(t)$, the \textit{subtree rooted at $u$} is the tree $t/u$ whose domain is the set $\{v|uv \in dom(t)\}$ and such that $t/u(v) = t(uv)$ for all $v \in dom(t/u)$.

Given two trees $t_1$ and $t_2$ and an address $u$ in $dom(t_1)$, the result of \textit{replacing the subtree rooted at $u$ in $t_1$ with $t_2$}, denoted by $t_1[u \leftarrow t_2]$ is the function whose domain is:

and whose graph is the set of pairs: