

adjacent-append^{11,40}

$\forall T:\text{Type}, x, y:T, L_1, L_2:(T \text{ List}).$

$\text{adjacent}(T;L_1 @ L_2;x;y)$

$\iff (\text{adjacent}(T;L_1;x;y)$

$\vee ((0 < \|L_1\|) \ \& \ (0 < \|L_2\|) \ \& \ x = \text{last}(L_1) \ \& \ y = \text{hd}(L_2))$

$\vee \text{adjacent}(T;L_2;x;y))$

ProofTree