

## rel-path-between-cons<sup>11,40</sup>

$\forall T:\text{Type}, R:(T \rightarrow T \rightarrow \mathbb{P}), L:(T \text{ List}), x, y, z:T.$

rel-path-between( $T;R;x;y;[z / L]$ )

$\iff (x = z$

&  $(\uparrow \text{null}(L) \Rightarrow (y = z))$

&  $(\neg(\uparrow \text{null}(L)) \Rightarrow ((x R \text{hd}(L)) \& \text{rel-path-between}(T;R;\text{hd}(L);y;L)))$ )