

l-ordered-equality^{0,22}

$\forall T:\text{Type}, R:(T \rightarrow T \rightarrow \text{Prop}).$
 $(\forall x:T. \neg R(x,x))$
 $\Rightarrow (\forall x, y:T. R(x,y) \Rightarrow \neg R(y,x))$
 $\Rightarrow (\forall as, bs:T \text{ List.}$
 $\text{l-ordered}(T;x,y.R(x,y);as)$
 $\Rightarrow \text{l-ordered}(T;x,y.R(x,y);bs)$
 $\Rightarrow (as = bs \Leftrightarrow (\forall x:T. (x \in as) \Leftrightarrow (x \in bs))))$