

sorted-by-exists2^{11,40}

$\forall T:\text{Type}, R:(T \rightarrow T \rightarrow \mathbb{P}).$
 $(\forall a, b:T. \text{Dec}(a = b))$
 $\Rightarrow (\forall a, b:T. \text{Dec}(R(a,b)))$
 $\Rightarrow \text{Linorder}(T;a,b.R(a,b))$
 $\Rightarrow (\forall L:(T \text{ List}). \exists L':T \text{ List}. (\text{sorted-by}(R;L') \ \& \ \text{no_repeats}(T;L') \ \& \ L \subseteq L' \ \& \ L' \subseteq L))$