

sorted-by-exists^{11,40}

$\forall T:\text{Type}, eq, r:(T \rightarrow T \rightarrow \mathbb{B}).$

$(\forall a, b:T. (\uparrow(eq(a,b))) \iff (a = b))$

$\Rightarrow \text{Linorder}(T;a,b.\uparrow(r(a,b)))$

$\Rightarrow (\forall L:(T \text{ List}).$

$\exists L':T \text{ List. } (\text{sorted-by}(\lambda x,y. \uparrow(r(x,y));L') \ \& \ \text{no_repeats}(T;L') \ \& \ L \subseteq L' \ \& \ L' \subseteq L)$