

split_tail_lemma^{4,23}

$\forall A:\text{Type}, f:(A \rightarrow \mathbb{B}), L:A \text{ List.}$

$\forall a \in L.$

$(\forall b \geq a \in L. f(b))$

$\Rightarrow (\exists L_1, L_2:A \text{ List.}$

$L = (L_1 @ L_2) \in A \text{ List} \ \& \ (a \in L_2) \ \& \ (\forall b \in L_2. f(b)) \ \& \ (\neg \text{null}(L_1) \Rightarrow \neg f(\text{last}(L_1)))$)