list+ [4,23]

STM: append_firstn_lastn

STM: append_split2

STM: non_nil_length

STM: length_zero

STM: list_decomp

STM: nth_tl_decomp

STM: nth_tl_decomp_eq

STM: firstn_decomp

STM: map_append_sq

STM: list_extensionality

STM: map_equal

STM: select_equal

STM: list_decomp_reverse

STM: list_append_singleton_ind

STM: cons_one_one

STM: map_length_nat

STM: list_2_decomp

STM: append_is_nil

STM: append_nil_sq

STM: comb_for_nth_tl_wf

STM: comb_for_ifthenelse_wf

STM: band_commutes

STM: null_append

STM: select_cons_tl_sq2

ABS: mklist$(n;f)$ **mklist**

STM: mklist_wf

STM: mklist_length

STM: mklist_select

ABS: $(x \in l)$ **l_member**

STM: l_member_wf

STM: member_exists

STM: map_equal2

STM: trivial_map

STM: comb_for_l_member_wf

STM: member_tl

STM: nil_member

STM: null_member

STM: member_null

STM: cons_member

STM: l_member_decidable

STM: member_append

STM: select_member

STM: member_singleton

STM: member_map

STM: l_member_non_nil

ABS: agree_on_common$(T;as;bs)$ **agree_on_common**

STM: agree_on_common_wf

STM: agree_on_common_cons

STM: agree_on_common_weakening

STM: agree_on_common_symmetry

STM: agree_on_common_nil

STM: agree_on_common_cons2

ABS: last(L) **last**

STM: last_wf

STM: last_lemma

STM: last_member

STM: last_cons

ABS: reverse_select($l;n$) **reverse_select**

STM: reverse_select_wf

ABS: ($x \in!\ l$) **l_member!**

STM: l_member!_wf

STM: cons_member!

STM: nil_member!

ABS: $L_1 \subseteq L_2$ **sublist**

STM: sublist_wf

STM: sublist_transitivity

STM: length_sublist

STM: cons_sublist_nil

STM: proper_sublist_length

STM: sublist_antisymmetry

STM: nil_sublist

STM: cons_sublist_cons

STM: member_sublist

STM: sublist_append

STM: comb_for_sublist_wf

STM: sublist_weakening

STM: sublist_nil

STM: sublist_tl

STM: sublist_tl2

STM: sublist_append_front

STM: sublist_pair

STM: member_iff_sublist

ABS: x before $y \in l$ **l_before**

STM: l_before_wf

STM: weak_l_before_append_front

STM: l_before_append_front

STM: l_tricotomy

STM: l_before_member

STM: singleton_before

STM: nil_before

STM: l_before_append

STM: l_before_member2

STM: l_before_sublist

STM: cons_before

STM: before_last

STM: l_before_select

ABS: $x << y \in l$ **strong_before**

STM: strong_before_wf

ABS: same_order$(x_1;y_1;x_2;y_2;L;T)$ **same_order**

STM: same_order_wf

ABS: $y = \mathrm{succ}(x)$ in $l \Rightarrow P(y)$ **l_succ**

STM: l_succ_wf

STM: comb_for_l_succ_wf

STM: cons_succ

ABS: A List$^+$ **listp**

STM: listp_wf

STM: listp_properties

STM: hd_wf_listp

STM: comb_for_hd_wf_listp

STM: map_equal3

STM: hd_map

STM: map_wf_listp

STM: cons_wf_listp

STM: comb_for_cons_wf_listp

ABS: count(P;L) **count**

STM: count_wf

ABS: filter(P;l) **filter**

STM: filter_wf

STM: filter_sublist

STM: filter_is_sublist

STM: length_filter

STM: member_filter

STM: filter_before

STM: agree_on_common_filter

STM: filter_functionality

STM: filter_append

STM: filter_filter

STM: filter_filter_reduce

STM: filter_type

STM: filter_map

ABS: $l_1 \leq l_2$ **iseg**

STM: iseg_wf

STM: cons_iseg

STM: iseg_transitivity

STM: iseg_append

STM: iseg_extend

STM: firstn_is_iseg

STM: iseg_transitivity2

STM: comb_for_iseg_wf

STM: iseg_weakening

STM: nil_iseg

STM: iseg_select

STM: iseg_member

STM: iseg_nil

STM: agree_on_common_iseg

STM: filter_iseg

STM: iseg_filter

STM: iseg_append0

STM: iseg_length

STM: iseg_is_sublist

ABS: $l_1 \parallel l_2$ **compat**

STM: compat_wf

STM: common_iseg_compat

ABS: list_accum($x,a.f(x;a);y;l$) **list_accum**

STM: list_accum_wf

STM: comb_for_list_accum_wf

STM: list_accum_split

ABS: zip($as;bs$) **zip**

STM: zip_wf

STM: zip_length

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STM: select_zip

STM: length_zip

ABS: unzip(as) **unzip**

STM: unzip_wf

STM: unzip_zip

STM: zip_unzip

ABS: first $x \in as$ s.t. $P(x)$ else d **find**

STM: find_wf

STM: find_property

ABS: list_all($x.P(x);l$) **list_all**

STM: list_all_wf

STM: list_all_iff

ABS: no_repeats($T;l$) **no_repeats**

STM: no_repeats_wf

STM: no_repeats_iff

STM: no_repeats_cons

STM: append_overlapping_sublists

STM: l_before_transitivity

STM: l_before_antisymmetry

STM: no_repeats_nil

ABS: l_disjoint($T;l_1;l_2$) **l_disjoint**

STM: l_disjoint_wf

STM: l_disjoint_member

STM: no_repeats_append

ABS: append_rel($T;L_1;L_2;L$) **append_rel**

STM: append_rel_wf

ABS: safety($A;tr.P(tr)$) **safety**

STM: safety_wf

STM: no_repeats_safety

STM: filter_safety

STM: all_safety

STM: safety_and

STM: safety_nil

STM: cond_safety_and

ABS: $\forall x \in L.\ P(x)$ **l_all**

STM: l_all_wf

STM: l_all_append

STM: l_all_filter

STM: comb_for_l_all_wf

STM: l_all_cons

STM: agree_on_common_append

STM: filter_trivial

STM: filter_trivial2

STM: filter_is_nil

STM: filter_is_singleton

STM: list_set_type

STM: l_all_fwd

STM: l_all_map

STM: l_all_nil

STM: l_all_reduce

STM: split_rel_last

STM: sublist_filter

STM: sublist_filter_set_type

STM: l_before_filter_set_type

STM: l_before_filter

STM: no_repeats_filter

STM: decidable__l_all

STM: filter_is_empty

STM: filter_is_singleton2

STM: append_split

ABS: $(\forall x{<}y{\in}L.P(x;y))$ **l_all2**

STM: l_all2_wf

STM: l_all2_cons

ABS: $(\forall x{\geq}a{\in}L.P(x))$ **l_all_since**

STM: l_all_since_wf

ABS: $(\exists x{\in}L.P(x))$ **l_exists**

STM: l_exists_wf

STM: l_exists_append

STM: l_exists_nil

STM: l_exists_cons

STM: l_exists_reduce

STM: decidable__l_exists

ABS: mapfilter(f;P;L) **mapfilter**

STM: mapfilter_wf

STM: member_map_filter

ABS: split_tail($L \mid \forall x.f(x)$) **split_tail**

STM: split_tail_wf

STM: split_tail_trivial

STM: split_tail_max

STM: split_tail_correct

STM: split_tail_rel

STM: split_tail_lemma

ABS: reduce2(f;k;i;as) **reduce2**

STM: reduce2_wf

STM: reduce2_shift

STM: comb_for_reduce2_wf

ABS: filter2(P;L) **filter2**

STM: filter2_wf

STM: cons_filter2

STM: filter_filter2

STM: member_filter2

STM: filter2_functionality

STM: filter_of_filter2

ABS: sublist_occurence(T;L_1;L_2;f) **sublist_occurence**

STM: sublist_occurence_wf

STM: range_sublist

ABS: disjoint_sublists(T;L_1;L_2;L) **disjoint_sublists**

STM: disjoint_sublists_wf

STM: disjoint_sublists_sublist

STM: disjoint_sublists_witness

STM: length_disjoint_sublists

ABS: interleaving(T;L_1;L_2;L) **interleaving**

STM: interleaving_wf

STM: l_before_interleaving

STM: nil_interleaving

STM: nil_interleaving2

STM: member_interleaving

STM: cons_interleaving

STM: comb_for_interleaving_wf

STM: length_interleaving

STM: interleaving_of_nil

STM: interleaving_symmetry

STM: cons_interleaving2

STM: interleaving_of_cons

STM: interleaving_filter2

STM: filter_interleaving

STM: interleaving_as_filter

STM: interleaving_as_filter_2

STM: sublist_interleaved

STM: interleaved_split

STM: interleaving_sublist

STM: append_interleaving

STM: sublist_append1

STM: sublist_iseg

STM: l_before_iseg

ABS: interleaving_occurence$(T;L_1;L_2;L;f_1;f_2)$ **interleaving_occurence**

STM: interleaving_occurence_wf

STM: interleaving_implies_occurence

STM: interleaving_occurence_onto

STM: interleaving_split

STM: interleaving_singleton

STM: last_with_property

STM: occurence_implies_interleaving

STM: filter_is_interleaving

STM: filter_interleaving_occurence

ABS: causal_order(L;R;P;Q) **causal_order**

STM: causal_order_wf

STM: causal_order_filter_iseg

STM: causal_order_transitivity

STM: causal_order_reflexive

STM: causal_order_or

STM: causal_order_sigma

STM: causal_order_monotonic

STM: causal_order_monotonic2

STM: causal_order_monotonic3

STM: causal_order_monotonic4

ABS: interleaved_family_occurence(T;I;L;L_2;f) **interleaved_family_occurence**

STM: interleaved_family_occurence_wf

ABS: interleaved_family(T;I;L;L_2) **interleaved_family**

STM: interleaved_family_wf

ABS: (L o f) **permute_list**

STM: permute_list_wf

STM: permute_list_select

STM: permute_list_length

STM: permute_permute_list

ABS: swap(L;i;j) **swap**

STM: swap_wf

STM: swap_select

STM: swap_length

STM: swap_swap

STM: swapped_select

STM: swap_cons

STM: swap_adjacent_decomp

STM: l_before_swap

STM: map_swap

STM: comb_for_swap_wf

ABS: guarded_permutation(T;P) **guarded_permutation**

STM: guarded_permutation_wf

STM: guarded_permutation_transitivity

ABS: count(i<j<$\|L\|$: P L i j) **count_index_pairs**

STM: count_index_pairs_wf

ABS: count($x < y$ in L | $P(x;y)$) **count_pairs**

STM: count_pairs_wf

ABS: index-of-first x in $L.P(x)$ **first_index**

STM: first_index_wf

STM: first_index_cons

ABS: agree_on(T;$x.P(x)$) **agree_on**

STM: agree_on_wf

STM: first_index_equal

STM: iseg_map

STM: safety_induced

STM: agree_on_equiv

ABS: strong_safety(T;$tr.P(tr)$) **strong_safety**

STM: strong_safety_wf

STM: filter_strong_safety

STM: strong_safety_safety

ABS: l_subset(T;as;bs) **l_subset**

STM: l_subset_wf

ABS: sublist$*$(T;as;bs) **sublist$*$**

STM: sublist∗_wf

STM: sublist∗_filter

DIR: aux