

## disjoint\_sublists<sup>11,40</sup>

disjoint\_sublists( $T;L_1;L_2;L$ )  
 $\equiv_{\text{def}}$   $\exists f_1:\{0..\|L_1|\} \rightarrow \{0..\|L|\}$   
 $\exists f_2:\{0..\|L_2|\} \rightarrow \{0..\|L|\}$   
(increasing( $f_1;\|L_1\|$ ) & ( $\forall j:\{0..\|L_1|\}. L_1[j] = L[(f_1(j))]$ )  
& increasing( $f_2;\|L_2\|$ ) & ( $\forall j:\{0..\|L_2|\}. L_2[j] = L[(f_2(j))]$ )  
& ( $\forall j_1:\{0..\|L_1|\}, j_2:\{0..\|L_2|\}. \neg(f_1(j_1) = f_2(j_2))$ ))

*clarification:*

disjoint\_sublists( $T;L_1;L_2;L$ )  
 $\equiv_{\text{def}}$   $\exists f_1:\{0..\|L_1|\} \rightarrow \{0..\|L|\}$   
 $\exists f_2:\{0..\|L_2|\} \rightarrow \{0..\|L|\}$   
(increasing( $f_1;\|L_1\|$ ) & ( $\forall j:\{0..\|L_1|\}. L_1[j] = L[(f_1(j))]$ )  $\in T$ )  
& increasing( $f_2;\|L_2\|$ ) & ( $\forall j:\{0..\|L_2|\}. L_2[j] = L[(f_2(j))]$ )  $\in T$ )  
& ( $\forall j_1:\{0..\|L_1|\}, j_2:\{0..\|L_2|\}. \neg(f_1(j_1) = f_2(j_2)) \in \mathbb{Z}$ ))