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leq-sequence-of-integers  $\langle 1, 2 \rangle \leq \langle 1, 2, 3 \rangle$ : true
frame-to-latex: Frame{ {  $\langle 0 \rangle, \langle 0, 1 \rangle, \langle 0, 1, 2 \rangle, \langle 0, 1, 2, 3 \rangle$  } c: {  $\langle \langle 0 \rangle \rangle \mapsto \text{Structure}\{\{ 'a', 'b', 'c' \}, P : () \Rightarrow \text{false}, Q : () \Rightarrow \text{false}\}, \langle \langle 0, 1 \rangle \rangle \mapsto \text{Structure}\{\{ 'a', 'b', 'c' \}, P : () \Rightarrow \text{false}, Q : () \Rightarrow \text{true}\}, \langle \langle 0, 1, 2 \rangle \rangle \mapsto \text{Structure}\{\{ 'a', 'b', 'c' \}, M : (a, a) \Rightarrow \text{false}$ 
 $(a, b) \Rightarrow \text{true}$ 
 $(a, c) \Rightarrow \text{false}$ 
 $(b, a) \Rightarrow \text{false}$ 
 $(b, b) \Rightarrow \text{false}$ 
 $(b, c) \Rightarrow \text{false}$ 
 $(c, a) \Rightarrow \text{false}$ 
 $(c, b) \Rightarrow \text{false}$ 
 $(c, c) \Rightarrow \text{false}, L : () \Rightarrow \text{true}\}, \langle \langle 0, 1, 2, 3 \rangle \rangle \mapsto \text{Structure}\{\{ 'a', 'b', 'c' \}, M : (a, a) \Rightarrow \text{false}$ 
 $(a, b) \Rightarrow \text{true}$ 
 $(a, c) \Rightarrow \text{false}$ 
 $(b, a) \Rightarrow \text{false}$ 
 $(b, b) \Rightarrow \text{false}$ 
 $(b, c) \Rightarrow \text{false}$ 
 $(c, a) \Rightarrow \text{false}$ 
 $(c, b) \Rightarrow \text{false}$ 
 $(c, c) \Rightarrow \text{false}, L : () \Rightarrow \text{true}\} \}$  Is frame example valid? false Counterexample:  $p = \langle 0, 1 \rangle, q = \langle 0, 1, 2 \rangle$ 
frame-to-latex: Frame{ {  $\langle 0 \rangle, \langle 0, 1 \rangle, \langle 0, 1, 2 \rangle, \langle 0, 1, 2, 3 \rangle$  } c: {  $\langle \langle 0 \rangle \rangle \mapsto \text{Structure}\{\{ 'a', 'b', 'c' \}, \}, \langle \langle 0, 1 \rangle \rangle \mapsto \text{Structure}\{\{ 'a', 'b', 'c' \}, P : () \Rightarrow \text{false}\}, \langle \langle 0, 1, 2 \rangle \rangle \mapsto \text{Structure}\{\{ 'a', 'b', 'c' \}, P : () \Rightarrow \text{false}, Q : () \Rightarrow \text{true}\}, \langle \langle 0, 1, 2, 3 \rangle \rangle \mapsto \text{Structure}\{\{ 'a', 'b', 'c' \}, P : () \Rightarrow \text{true}, Q : () \Rightarrow \text{true}\} \}$  Is frame example valid? true No counterexamples found.

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