A list is bitonic if it is monotonic up to some index, and antimonotonic after that. For example, \([1; 3; 4; 5; 6; 4; 3]\) is bitonic. Express formally that \(L\) is bitonic.

\[
\exists n: 0,\ldots,\#L+1 \cdot (\forall i, j: 0,\ldots, n \cdot i \leq j \Rightarrow L_i \leq L_j) \land (\forall i, j: n,\ldots, \#L \cdot i \leq j \Rightarrow L_i \geq L_j)
\]

This allows the monotonic and antimonotonic parts to be empty. I am not sure if that's what the question meant. If the two parts have to be nonempty, then

\[
\exists n: 1,\ldots, \#L \cdot (\forall i, j: 0,\ldots, n \cdot i \leq j \Rightarrow L_i \leq L_j) \land (\forall i, j: n,\ldots, \#L \cdot i \leq j \Rightarrow L_i \geq L_j)
\]