Let $L$ be a list-of-integers state variable (program variable) $L: [*int]$. Formalize the specification “sort list $L$”.

§ First, I expand the informal specification as follows:

(Each integer occurs the same number of times as an item in $L$ as it does in $L'$) 

$\land$ ($L'$ is monotonic)

Now formally:

$(\forall i: int\cdot \varphi(\$j: 0,..\#L. L. j = i) = \varphi(\$j: 0,..\#L'. L'. j = i))$

$\land$ $(\forall i, j: 0,..\#L'. i \leq j \Rightarrow L'. i \leq L'. j)$