

SPEC SEQ =

{ **based_on** BOOL,
 sort Seq α ,

$\langle \rangle$: Seq α ,

$\langle - \rangle$: $\alpha \rightarrow$ Seq α ,

$- \circ -$: Seq α , Seq $\alpha \rightarrow$ Seq α ,

Mixfix

Infix

iseseq : Seq $\alpha \rightarrow$ Bool,

first, **last** : Seq $\alpha \rightarrow \alpha$,

head, **rest** : Seq $\alpha \rightarrow$ Seq α ,

 Seq α **generated_by** $\langle \rangle$, $\langle - \rangle$, \circ ,

iseseq($\langle \rangle$) = true,

iseseq($\langle a \rangle$) = false,

iseseq($x \circ y$) = (**iseseq**(x) \wedge **iseseq**(y)),

$x \circ \langle \rangle = x = \langle \rangle \circ x$,

$(x \circ y) \circ z = x \circ (y \circ z)$,

first($\langle a \rangle \circ x$) = a ,

last($x \circ \langle a \rangle$) = a ,

head($x \circ \langle a \rangle$) = x ,

rest($\langle a \rangle \circ x$) = x

}