

es-before^{11,40}

```
before( $e$ )
 $\equiv_{\text{def}}$  if es-first( $es; e$ )
    then []
    else append(before(es-pred( $es; e$ )); cons(es-pred( $es; e$ ); []))
fi
```

clarification:

```
es-before( $es; e$ )
 $\equiv_{\text{def}}$  if es-first( $es; e$ )
    then []
    else append(es-before( $es; es\text{-pred}(es; e)$ )); cons(es-pred( $es; e$ ); []))
fi
(recursive)
```