

Recursive Defn of Concat

Let the alphabet be denoted Σ .

Recall defn:

A "string over Σ " is given by:

1. ϵ is a "string over Σ "
2. if s is a "string over Σ ", then so is $s\sigma$, where $\sigma \in \Sigma$.

Nothing else is a "string over Σ "

Let s_1 and s_2 be "strings over Σ ".

$s_1 \circ s_2$ is given by

1. if $s_2 = \epsilon$ then $s_1 \circ s_2 = \underline{s_1}$
2. if $s_2 = s\sigma$ for some "string over Σ " s and some $\sigma \in \Sigma$, then
 $s_1 \circ s_2 = \underline{(s_1 \circ s)\sigma}$