

$f \circ g \Leftrightarrow x \mapsto f(g(x)) \dots$
 $x \mapsto f \circ g \Leftrightarrow x \mapsto f(g(x)) \dots$

Neděl výpočty



$a \rightarrow [b]$
 $b \rightarrow [c]$

$(\gg) = [a] \rightarrow (a \rightarrow [b]) \rightarrow [c]$

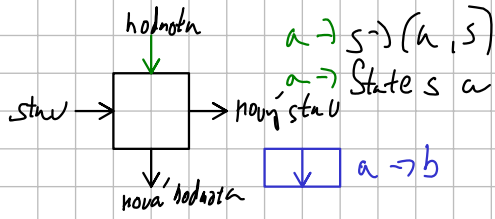
$map :: (a \rightarrow [b]) \rightarrow [a] \rightarrow [[b]]$

$concat :: [[a]] \rightarrow [a]$

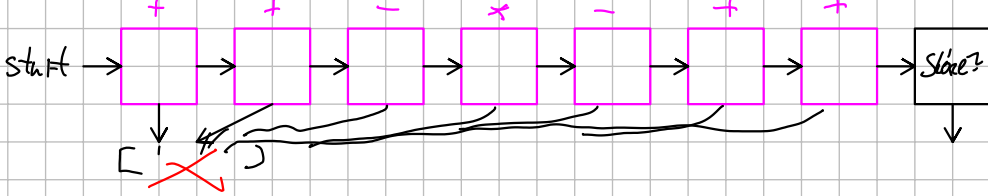
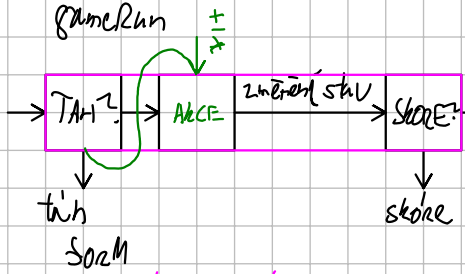
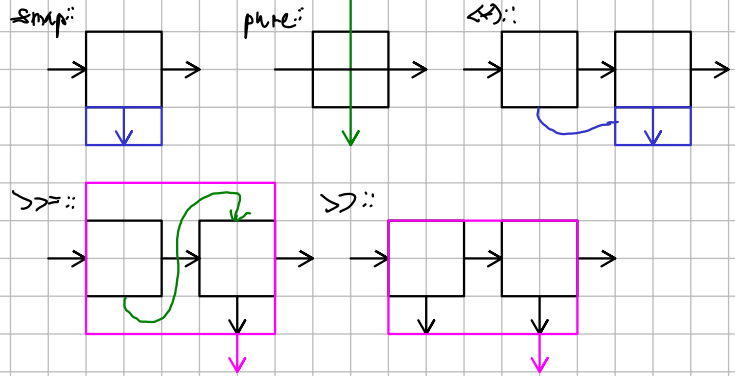
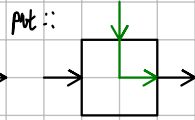
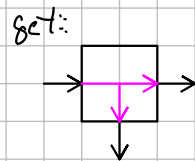
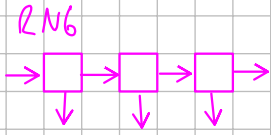
$x \gg f = concat (map f x)$

| | | |
|---|---|-----|
| x | s | ... |
| 5 | x | xy |
| 6 | x | xy |
| 7 | x | xy |

držení unitárního stavu



$a \rightarrow s \rightarrow (a, s)$
 $a \rightarrow \text{State } s \ a$



Operace

$mapM :: (a \rightarrow m b) \rightarrow [a] \rightarrow m [b]$

$l:State :: (a \rightarrow b \rightarrow c) \rightarrow a \rightarrow b \rightarrow m c$

$mapM = \text{sequence} \cdot map$

$(.) :: (b \rightarrow c) \rightarrow (a \rightarrow b) \rightarrow (a \rightarrow c)$

$(\leq) :: (b \rightarrow m c) \rightarrow (a \rightarrow m b) \rightarrow (a \rightarrow m c)$

$combinace \ 0 = [[]]$
 $combinace \ l \ 0 = [[]]$

$k = do$

$index \leftarrow [0..(\text{length } l)-1]$

$let \ elem = l ! index$

$let \ subL =$

$comb \leftarrow \text{combinace } subL (k-1)$

$return (elem : comb)$

bez opakování

$(do)A (index+1) []$