

Standarden funktionen hastell

$\text{add} :: \text{Integer} \rightarrow \text{Integer} \rightarrow \text{Integer}$

$\text{inc} = \text{add } 1$

$\text{map} :: (a \rightarrow b) \rightarrow [a] \rightarrow [b]$

$\text{map } f [] = []$

$\text{map } f (x:xs) = f x : \text{map } f xs$

$(++) :: [a] \rightarrow [a] \rightarrow [a]$

$[] ++ ys = ys$

$(x:xs) ++ ys = x : (xs ++ ys)$

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

$f . g = \lambda x \rightarrow f(g x)$

$\text{ones} = 1 : \text{ones}$

$\text{numSquares } n = n : \text{numSquares } (n+1)$

$\text{squares} = \text{map } (^2) (\text{numSquares } 0)$

$\text{fib} = 1 : 1 : [a + b \mid (a, b) \leftarrow \text{zip } \text{fib } (\text{tail } \text{fib})]$

$\text{zip } (x:xs) (y:ys) = (x, y) : \text{zip } xs \ ys$

$\text{zip } xs \ ys = []$

$\text{head } (x:xs) = x$

$\text{head } [] = \text{error} ; \text{head} :: [a] \rightarrow a$

$\text{length} :: [a] \rightarrow \text{Integer}$

$\text{length } [] = 0$

$\text{length } (x:xs) = 1 + \text{length } xs$

$\text{tail} :: [a] \rightarrow [a]$

$\text{tail } (x:xs) = xs$

$x \text{ 'elem' } C \Rightarrow \text{False}$

$x \text{ 'elem' } \{(y: y)\} = x == y \mid (x \text{ 'elem' } y)$

$\text{elem} :: (\text{Eq } a) \Rightarrow a \rightarrow [a] \rightarrow \text{Bool}$

$(+), (-), (*) :: (\text{Num } a) \Rightarrow a \rightarrow a \rightarrow a$

$\text{negate}, \text{abs} :: (\text{Num } a) \Rightarrow a \rightarrow a$

$\text{truncate}, \text{round}, \text{floor}, \text{ceiling}, \text{numerator}, \text{denominator}, \text{quotient}, \text{remainder}, \text{hcf}, \text{gcd}$

$\text{take}, \text{drop}, \text{filter}$