

<div>factorial (recursive)</div> <div>(Haskell) Saturday 29th October, 2016</div>	<div>factorial (non-recursive)</div> <div>(Haskell) Saturday 29th October, 2016</div>
<div>(*)</div> <div>(Haskell) Saturday 29th October, 2016</div>	<div>product</div> <div>(Haskell) Saturday 29th October, 2016</div>
<div>length</div> <div>(Haskell) Saturday 29th October, 2016</div>	<div>reverse</div> <div>(Haskell) Saturday 29th October, 2016</div>

$\begin{aligned} factorial &:: Int \rightarrow Int \\ factorial\ n &= product\ [1..n] \end{aligned}$	$\begin{aligned} factorial &:: Int \rightarrow Int \\ factorial\ 0 &= 1 \\ factorial\ (n + 1) &= (n + 1) * factorial\ n \end{aligned}$
$\begin{aligned} product &:: Num\ a \Rightarrow [a] \rightarrow a \\ product\ [] &= 1 \\ product\ (n : ns) &= n * product\ ns \end{aligned}$	$\begin{aligned} (*) &:: Int \rightarrow Int \rightarrow Int \\ m * 0 &= 0 \\ m * (n + 1) &= m + (m * n) \end{aligned}$
$\begin{aligned} reverse &:: [a] \rightarrow [a] \\ reverse\ [] &= [] \\ reverse\ (x : xs) &= reverse\ xs ++ [x] \end{aligned}$	$\begin{aligned} length &:: [a] \rightarrow Int \\ length\ [] &= 0 \\ length\ [_ : xs] &= 1 + length\ xs \end{aligned}$