

H 8-1

$$\begin{array}{c}
 \text{Var} \quad \frac{}{\Delta \vdash f :: (\alpha \rightarrow \alpha) \rightarrow \beta \rightarrow \beta} \quad \frac{}{\Delta \vdash x :: \beta} \quad \text{Var} \\
 \text{App} \quad \frac{}{\Delta \vdash (f x) :: \beta \rightarrow \beta} \quad \frac{}{\Delta \vdash y :: \beta} \quad \text{Var} \\
 \text{App} \quad \frac{\{f :: (\alpha \rightarrow \alpha) \rightarrow \beta \rightarrow \beta\} \vdash (\lambda x \rightarrow f x)(\lambda y \rightarrow y) :: \beta \rightarrow \beta}{}
 \end{array}$$

H 8-2

a) $\{ \text{Int} \rightarrow \alpha = \beta \rightarrow (\text{Bool} \rightarrow \beta), \gamma \rightarrow \text{Int} = \alpha \}$
 $\alpha = \text{Bool} \rightarrow \beta = \gamma \rightarrow \text{Int}$
 $\beta = \text{Int} \quad \gamma = \text{Bool} \quad \alpha = \text{Bool} \rightarrow \text{Int}$

b) $\alpha = \text{Int}, \beta = \text{Double}, \gamma = \text{Double}, \delta = \text{Double}, \theta = \text{Double}$
 $\eta = \alpha, \quad \alpha \rightarrow \beta = \delta \rightarrow \gamma$
 $\text{Int} \rightarrow \text{Double} \neq \text{Bool} \rightarrow \text{Double} \Rightarrow \text{Unifikator nicht vorhanden}$

c) $\alpha \rightarrow \beta = \delta \rightarrow \theta, \quad \alpha = \eta, \quad \alpha \rightarrow \beta = \delta \rightarrow \gamma$