

(d) In contrast to Example (c), in the proof tree below the two occurrences of A are discharged separately. To this effect, they are labeled differently.

$$\begin{array}{c}
 \frac{(A \Rightarrow (B \Rightarrow C))^z}{B \Rightarrow C} \qquad \frac{A^x}{A \Rightarrow C} \qquad \frac{(A \Rightarrow B)^y}{B} \qquad \frac{A^t}{A \Rightarrow C} \\
 \hline
 \frac{C}{A \Rightarrow C} \quad x \\
 \hline
 \frac{(A \Rightarrow B) \Rightarrow (A \Rightarrow C)}{(A \Rightarrow (B \Rightarrow C)) \Rightarrow ((A \Rightarrow B) \Rightarrow (A \Rightarrow C))} \quad y \\
 \hline
 \frac{(A \Rightarrow (B \Rightarrow C)) \Rightarrow ((A \Rightarrow B) \Rightarrow (A \Rightarrow C))}{A \Rightarrow ((A \Rightarrow (B \Rightarrow C)) \Rightarrow ((A \Rightarrow B) \Rightarrow (A \Rightarrow C)))} \quad z \\
 \hline
 A \Rightarrow ((A \Rightarrow (B \Rightarrow C)) \Rightarrow ((A \Rightarrow B) \Rightarrow (A \Rightarrow C))) \quad t
 \end{array}$$