

t40\_pepin  
 (TMTQfEduLPj8nbejp4YM1QPBStGB99bNw5a)

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Let  $v1\_int\_1 : \iota \Rightarrow o$  be given. Let  $r2\_int\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_int\_1 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (\forall X2. \\ & (v1\_int\_1 X2) \Rightarrow (\forall X3.(v1\_int\_1 X3) \Rightarrow (((r2\_int\_1 X0 X1 X2) \wedge \\ & (r2\_int\_1 X1 X3 X2)) \Rightarrow (r2\_int\_1 X0 X3 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_int\_1 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (\forall X2. \\ & (v1\_int\_1 X2) \Rightarrow ((r2\_int\_1 X0 X1 X2) \Rightarrow (r2\_int\_1 X1 X0 X2)))) \end{aligned} \quad (2)$$

### Theorem 1

$$\begin{aligned} & \forall X0.(v1\_int\_1 X0) \Rightarrow (\forall X1.(v1\_int\_1 X1) \Rightarrow (\forall X2. \\ & (v1\_int\_1 X2) \Rightarrow (\forall X3.(v1\_int\_1 X3) \Rightarrow (((r2\_int\_1 X0 X1 X2) \wedge \\ & (r2\_int\_1 X0 X3 X2)) \Rightarrow (r2\_int\_1 X1 X3 X2)))))) \end{aligned}$$