

t31_gr_cy_3 (TMLgF-
BmtHkUx7Pgmovp9syx2KT9ZBMBbexr)

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Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $r1_int_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_int_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_int_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_int_1 X0) \Rightarrow (\forall X1.(v1_int_1 X1) \Rightarrow (\forall X2. \\ & (v1_int_1 X2) \Rightarrow ((r2_int_1 X0 X1 X2) \Rightarrow (k3_int_2 X0 X2 = k3_int_2 X1 \\ & X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_int_1 X0) \Rightarrow (\forall X1.(v1_int_1 X1) \Rightarrow ((r1_int_2 \\ & X0 X1) \Leftrightarrow (k3_int_2 X0 X1 = np_1))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_int_1 X0) \Rightarrow (\forall X1.(v1_int_1 X1) \Rightarrow (\forall X2. \\ & (v1_int_1 X2) \Rightarrow (((r1_int_2 X0 X2) \wedge (r2_int_1 X0 X1 X2)) \Rightarrow (r1_int_2 \\ & X1 X2)))) \end{aligned}$$