

# t61\_ordinal3 (TMLduCerUKvdwAjzVA- JAJy5dSjn2aKGgKSC)

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Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k10\_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_ordinal3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.(v3\_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v3\_ordinal1 X2) \Rightarrow ((X0 \in X1) \Rightarrow (((\neg r1\_ordinal1 X2 X0) \wedge (\neg X2 \in X0)) \vee \\ & (k5\_ordinal3 X0 X2 \in k5\_ordinal3 X1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.(v3\_ordinal1 X1) \Rightarrow (k5\_ordinal3 (k10\_ordinal2 X0 X1) X0 = X1)) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.(v3\_ordinal1 X1) \Rightarrow (( \\ & r1\_ordinal1 X0 (k10\_ordinal2 X0 X1)) \wedge (r1\_ordinal1 X1 (k10\_ordinal2 \\ & X0 X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1 X0) \wedge (v3\_ordinal1 X1)) \Rightarrow (v3\_ordinal1 (k10\_ordinal2 X0 X1)) \quad (4)$$

## Theorem 1

$$\begin{aligned} & \forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.(v3\_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v3\_ordinal1 X2) \Rightarrow ((k10\_ordinal2 X0 X1 \in X2) \Rightarrow (X1 \in k5\_ordinal3 X2 \\ & X0)))) \end{aligned}$$