t36_ordinal3 (TMG2w5maGALBEiM4DRzBgBMARgHZgCrmPdu)

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Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $k1\_xboole\_0 : \iota$ be given. Let $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11\_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow (\forall X2.(v3\_ordinal1\ X2) \Rightarrow ((X0 \in X1) \Rightarrow ((X2 = k1\_xboole\_0) \vee ((X0 \in k11\_ordinal2\ X1\ X2) \wedge (X0 \in k11\_ordinal2\ X2\ X1)))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(v3\_ordinal1\ X1) \Rightarrow ((X0 \in X1) \Rightarrow (v3\_ordinal1\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1\ X0) \wedge (v3\_ordinal1\ X1)) \Rightarrow (v3\_ordinal1\ (k11\_ordinal2\ X0\ X1)) \tag{3}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow ((r1\_ordinal1\ X0\ X1) \Leftrightarrow (\forall X2.(v3\_ordinal1\ X2) \Rightarrow ((X2 \in X0) \Rightarrow (X2 \in X1))))) \tag{4}$$

Theorem 1

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow ((X0 \neq k1\_xboole\_0) \Rightarrow ((r1\_ordinal1\ X1\ (k11\_ordinal2\ X1\ X0)) \wedge (r1\_ordinal1\ X1\ (k11\_ordinal2\ X0\ X1)))))$$