l3_wellord1 (TMGpHMesaL1AHRnVixSca5y2NLGVjD6WKyb)

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Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_2 : \iota \Rightarrow o$ be given. Let $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_relat\_1 : \iota \Rightarrow \iota$ be given. Let $r4\_relat\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.(v1\_relat\_1\ X2) \Rightarrow ((k4\_tarski\ X0\ X1 \in X2) \Rightarrow ((X0 \in k1\_relat\_1\ X2) \wedge (X1 \in k1\_relat\_1\ X2))) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ X0) \Rightarrow (\forall X1.(r4\_relat\_2\ X0\ X1) \Leftrightarrow (\forall X2.\forall X3.((X2 \in X1) \wedge ((X3 \in X1) \wedge ((k4\_tarski\ X2\ X3 \in X0) \wedge (k4\_tarski\ X3\ X2 \in X0)))) \Rightarrow (X2 = X3))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ X0) \Rightarrow ((v4\_relat\_2\ X0) \Leftrightarrow (r4\_relat\_2\ X0\ (k1\_relat\_1\ X0))) \tag{3}$$

Theorem 1

$$\forall X0.(v1\_relat\_1\ X0) \Rightarrow ((v4\_relat\_2\ X0) \Leftrightarrow (\forall X1.\forall X2.((k4\_tarski\ X1\ X2 \in X0) \wedge (k4\_tarski\ X2\ X1 \in X0)) \Rightarrow (X1 = X2)))$$