

t13\_ordinal1  
(TMEsPiz5Zb1fHgSbBNEzcvvv9D37rbw6kES)

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Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg(X0 \in X1) \wedge ((X1 \in X2) \wedge (X2 \in X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (2)$$

Assume the following.

$$\forall X0. (v2\_ordinal1 X0) \Leftrightarrow (\forall X1. \forall X2. \neg(X1 \in X0) \wedge ((X2 \in X0) \wedge ((\neg X1 \in X2) \wedge ((X1 \neq X2) \wedge (\neg X2 \in X1)))))) \quad (3)$$

Assume the following.

$$\forall X0. (v1\_ordinal1 X0) \Leftrightarrow (\forall X1. (X1 \in X0) \Rightarrow (r1\_tarski X1 X0)) \quad (4)$$

Assume the following.

$$\forall X0. ((v1\_ordinal1 X0) \wedge (v2\_ordinal1 X0)) \Rightarrow (v3\_ordinal1 X0) \quad (5)$$

Assume the following.

$$\forall X0. (v3\_ordinal1 X0) \Rightarrow ((v1\_ordinal1 X0) \wedge (v2\_ordinal1 X0)) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (\neg X1 \in X0) \quad (7)$$

**Theorem 1**  $\forall X0. \forall X1. (v3\_ordinal1 X1) \Rightarrow ((X0 \in X1) \Rightarrow (v3\_ordinal1 X0)).$