

## t5\_ordinal2

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Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow (v3\_ordinal1 (k3\_tarski X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.(v3\_ordinal1 X1) \Rightarrow ((r1\_ordinal1 X0 X1) \vee (X1 \in X0))) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k3\_tarski X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (\exists X3.(X2 \in X3) \wedge (X3 \in X0))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (\neg X1 \in X0) \quad (4)$$

**Theorem 1**  $\forall X0.(v3\_ordinal1 X0) \Rightarrow (r1\_ordinal1 (k3\_tarski X0) X0)$ .