

## t24\_ordinal1

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Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Let  $k1\_ordinal1 : \iota \Rightarrow \iota$  be given. Let  $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. (\forall X1. (X1 \in X0) \Rightarrow (v3\_ordinal1 X1)) \Rightarrow (v3\_ordinal1 (k3\_tarski X0)) \quad (1)$$

Assume the following.

$$\forall X0. (v3\_ordinal1 X0) \Rightarrow (\forall X1. (v3\_ordinal1 X1) \Rightarrow ((X0 \in k1\_ordinal1 X1) \Leftrightarrow (r1\_ordinal1 X0 X1))) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((v3\_ordinal1 X0) \wedge (v3\_ordinal1 X1)) \Rightarrow ((r1\_ordinal1 X0 X1) \Leftrightarrow (r1\_tarski X0 X1)) \quad (3)$$

Assume the following.

$$\forall X0. (v3\_ordinal1 X0) \Rightarrow ((\neg v1\_xboole\_0 (k1\_ordinal1 X0)) \wedge (v3\_ordinal1 (k1\_ordinal1 X0))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k3\_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (\exists X3. (X2 \in X3) \wedge (X3 \in X0))) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (r1\_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (6)$$

Assume the following.

$$\forall X0. k1\_ordinal1 X0 = k2\_xboole\_0 X0 (k1\_tarski X0) \quad (7)$$

### Theorem 1

$$\forall X0. \neg (\forall X1. (X1 \in X0) \Rightarrow (v3\_ordinal1 X1)) \wedge (\forall X1. (v3\_ordinal1 X1) \Rightarrow (\neg r1\_tarski X0 X1))$$