

t22_ordinal1
(TMTky4fyBV4TNdJkHeAVGSZM7kTixnu5DNh)

October 27, 2020

Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in k1_ordinal1 X1) \Leftrightarrow ((X0 \in X1) \vee (X0 = X1)) \quad (1)$$

Assume the following.

$$\forall X0. X0 \in k1_ordinal1 X0 \quad (2)$$

Assume the following.

$$\forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. (v3_ordinal1 X1) \Rightarrow ((r1_ordinal1 X0 X1) \vee (X1 \in X0))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow (r1_ordinal1 X0 X0) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow (r1_ordinal1 X0 X1) \Leftrightarrow (r1_tarski X0 X1) \quad (5)$$

Assume the following.

$$\forall X0. k1_ordinal1 X0 = k2_xboole_0 X0 (k1_tarski X0) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (r1_tarski X1 X0)) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (\neg X1 \in X0) \quad (8)$$

Theorem 1

$$\forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. (v3_ordinal1 X1) \Rightarrow ((X0 \in k1_ordinal1 X1) \Leftrightarrow (r1_ordinal1 X0 X1)))$$