

t38_ordinal3 (TMX-
piNDhod8qjDWBRj6WbHhWvmTgjhNscFi)

October 27, 2020

Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k10_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg(X0 \in X1) \wedge (r1_tarski X1 X0) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. (v3_ordinal1 X1) \Rightarrow (\forall X2. \\ (v3_ordinal1 X2) \Rightarrow ((r1_ordinal1 X0 X1) \Rightarrow (r1_ordinal1 (k10_ordinal2 \\ X2 X0) (k10_ordinal2 X2 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. (v3_ordinal1 X1) \Rightarrow (\neg \\ (r1_ordinal1 X0 X1) \wedge (\forall X2. (v3_ordinal1 X2) \Rightarrow (X1 \neq k10_ordinal2 \\ X0 X2)))))) \end{aligned} \quad (3)$$

Assume the following.

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

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.

$$\forall X0. \forall X1. ((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow (\\ v3_ordinal1 (k10_ordinal2 X0 X1)) \quad (6)$$

Theorem 1

$$\begin{aligned} \forall X0. (v3_ordinal1 X0) \Rightarrow (\forall X1. (v3_ordinal1 X1) \Rightarrow (\forall X2. \\ (v3_ordinal1 X2) \Rightarrow (\neg(X0 \in k10_ordinal2 X1 X2) \wedge (\neg X0 \in X1) \wedge (\forall X3. \\ (v3_ordinal1 X3) \Rightarrow (\neg(X3 \in X2) \wedge (X0 = k10_ordinal2 X1 X3))))))) \end{aligned}$$