

t59_ordinal5

(TMR7nMnFbYc5j72hvDYNMMAM1AZvSRZuS5R)

October 27, 2020

Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $k5_ordinal5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_ordinal3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_ordinal3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v3_ordinal1 X2) \Rightarrow ((X0 \in k11_ordinal2 X1 X2) \Rightarrow ((k6_ordinal3 X0 X2 \in \\ & X1) \wedge (k7_ordinal3 X0 X2 \in X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((\\ & np_1 \in X0) \Rightarrow (X1 \in k12_ordinal2 X0 (k1_ordinal1 (k5_ordinal5 X1 X0)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow (k12_ordinal2 \\ & X0 (k1_ordinal1 X1) = k11_ordinal2 X0 (k12_ordinal2 X0 X1))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow (\\ & v3_ordinal1 (k12_ordinal2 X0 X1)) \end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v3_ordinal1 X2) \Rightarrow (((k6_numbers \in X0) \wedge ((np_1 \in X1) \wedge (X2 = k5_ordinal5 \\ & X0 X1))) \Rightarrow (k6_ordinal3 X0 (k12_ordinal2 X1 X2) \in X1)))) \end{aligned}$$