

t61_ordinal5
(TMUpNxbAkocJJVTjjdsjLc37GNE1sVLW8Fz)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k7_ordinal3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_ordinal3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k6_ordinal3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow (k5_ordinal3 (k10_ordinal2 X0 X1) X0 = X1)) \quad (1)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow (\neg (X0 \neq k1_xboole_0) \wedge (k12_ordinal2 X0 X1 = k1_xboole_0))) \quad (2)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow (v3_ordinal1 (k6_ordinal3 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow (v3_ordinal1 (k12_ordinal2 X0 X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((v3_ordinal1 X0) \wedge (v3_ordinal1 X1)) \Rightarrow (v3_ordinal1 (k11_ordinal2 X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow (k7_ordinal3 X0 X1 = k5_ordinal3 X0 (k11_ordinal2 (k6_ordinal3 X0 X1) X1))) \quad (7)$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v3_ordinal1\ X0) \Rightarrow (\forall X1.(v3_ordinal1\ X1) \Rightarrow (\forall X2. \\
& (v3_ordinal1\ X2) \Rightarrow (((X1 \neq k1_xboole_0) \Rightarrow ((X2 = k6_ordinal3\ X0\ X1) \Leftrightarrow \\
& (\exists X3.(v3_ordinal1\ X3) \wedge ((X0 = k10_ordinal2\ (k11_ordinal2 \\
& X2\ X1)\ X3) \wedge (X3 \in X1)))))) \wedge ((X1 = k1_xboole_0) \Rightarrow ((X2 = k6_ordinal3 \\
& X0\ X1) \Leftrightarrow (X2 = k1_xboole_0))))))
\end{aligned} \tag{8}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(v3_ordinal1\ X0) \Rightarrow (\forall X1.(v3_ordinal1\ X1) \Rightarrow (\forall X2. \\
& (v3_ordinal1\ X2) \Rightarrow ((X0 \neq k6_numbers) \Rightarrow (k7_ordinal3\ X1\ (k12_ordinal2 \\
& X0\ X2) \in k12_ordinal2\ X0\ X2))))
\end{aligned}$$