

t34_ordinal6

(TMdw4HSELeVFUHeZo5Cq6XB42xJNJUHrLSS)

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Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v5_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_ordinal2 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k3_ordinal6 : \iota \Rightarrow \iota$ be given. Let $r1_abian : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_ordinal1 : \iota \Rightarrow \iota$ be given. Let $k2_ordinal6 : \iota \Rightarrow \iota$ be given. Let $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_wellord1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_wellord2 : \iota \Rightarrow \iota$ be given. Let $k1_ordinal6 : \iota \Rightarrow \iota$ be given. Let $k2_ordinal1 : \iota \Rightarrow \iota$ be given. Let $k2_wellord2 : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v2_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((\\ v1_funct_1 X1) \wedge ((v5_ordinal1 X1) \wedge (v1_ordinal2 X1)))) \Rightarrow (\neg(r1_abian \\ X0 X1) \wedge (\forall X2.(v3_ordinal1 X2) \Rightarrow (\neg(X2 \in k9_xtuple_0 (k3_ordinal6 \\ X1)) \wedge (X0 = k1_funct_1 (k3_ordinal6 X1) X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.\forall X3.((v1_relat_1 X3) \wedge \\ ((v1_funct_1 X3) \wedge ((v5_ordinal1 X3) \wedge (v1_ordinal2 X3)))) \Rightarrow (((\\ X3 = k2_ordinal6 X0) \wedge ((X1 \in k9_xtuple_0 X3) \wedge (X2 \in k9_xtuple_0 X3))) \Rightarrow \\ ((X1 \in X2) \Leftrightarrow (k1_funct_1 X3 X1 \in k1_funct_1 X3 X2))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((\\ X0 \in X1) \Leftrightarrow (r1_ordinal1 (k1_ordinal1 X0) X1))) \quad (3)$$

Assume the following.

$$\forall X0.(v1_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow (\forall X2. \\ (v3_ordinal1 X2) \Rightarrow (((r1_tarski X0 X1) \wedge (X1 \in X2)) \Rightarrow (X0 \in X2)))) \quad (4)$$

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.

$$\forall X0.((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge(v5_ordinal1\ X0)))\Rightarrow((v3_ordinal1\ (k9_xtuple_0\ X0)) \quad (6)$$

Assume the following.

$$\forall X0.(v3_ordinal1\ X0)\Rightarrow((\neg v1_xboole_0\ (k1_ordinal1\ X0))\wedge (v3_ordinal1\ (k1_ordinal1\ X0))) \quad (7)$$

Assume the following.

$$\forall X0.((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge((v5_ordinal1\ X0)\wedge(v1_ordinal2\ X0))))\Rightarrow((v1_relat_1\ (k3_ordinal6\ X0))\wedge((v1_funct_1\ (k3_ordinal6\ X0))\wedge((v5_ordinal1\ (k3_ordinal6\ X0))\wedge(v1_ordinal2\ (k3_ordinal6\ X0)))))) \quad (8)$$

Assume the following.

$$\forall X0.((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge((v5_ordinal1\ X0)\wedge(v1_ordinal2\ X0))))\Rightarrow(k3_ordinal6\ X0 = k2_ordinal6\ (ReplSep\ (toset\ (\lambda X1 : \iota.m1_subset_1\ X1\ (k9_xtuple_0\ X0)))\ (\lambda X1 : \iota.r1_abian\ X1\ X0)\ (\lambda X1 : \iota.X1)))) \quad (9)$$

Assume the following.

$$\forall X0.k2_ordinal6\ X0 = k3_wellord1\ (k1_wellord2\ (k1_ordinal6\ X0))\ (k1_wellord2\ (k2_ordinal1\ X0)) \quad (10)$$

Assume the following.

$$\forall X0.k1_ordinal6\ X0 = k2_wellord2\ (k1_wellord2\ (k2_ordinal1\ X0)) \quad (11)$$

Assume the following.

$$\forall X0.k1_ordinal1\ X0 = k2_xboole_0\ X0\ (k1_tarski\ X0) \quad (12)$$

Assume the following.

$$\forall X0.(v3_ordinal1\ X0)\Rightarrow((v1_ordinal1\ X0)\wedge(v2_ordinal1\ X0)) \quad (13)$$

Theorem 1

$$\forall X0.(v3_ordinal1\ X0)\Rightarrow(\forall X1.(v3_ordinal1\ X1)\Rightarrow(\forall X2. ((v1_relat_1\ X2)\wedge((v1_funct_1\ X2)\wedge((v5_ordinal1\ X2)\wedge(v1_ordinal2\ X2))))\Rightarrow(((X0 \in k9_xtuple_0\ (k3_ordinal6\ X2))\wedge((r1_abian\ X1\ X2)\wedge(k1_funct_1\ (k3_ordinal6\ X2)\ X0 \in X1)))\Rightarrow(k1_ordinal1\ X0 \in k9_xtuple_0\ (k3_ordinal6\ X2))))))$$