

t35_ordinal6

(TMKcc1Xygsy76bGCpUFA1gdrCZZbasZVnuc)

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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 $k1_ordinal1 : \iota \Rightarrow \iota$ 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 $r1_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_ordinal2 : \iota \Rightarrow o$ be given. Let $k2_ordinal6 : \iota \Rightarrow \iota$ be given. Let $k1_ordinal6 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_ordinal1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v5_ordinal1 X0) \wedge ((v1_funct_1 \\ & X0) \wedge (v1_ordinal2 X0)))) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v3_ordinal1 X2) \Rightarrow (((v2_ordinal2 X0) \wedge ((r1_ordinal1 X1 X2) \wedge (X2 \in \\ & k9_xtuple_0 X0))) \Rightarrow (r1_ordinal1 (k1_funct_1 X0 X1) (k1_funct_1 \\ & X0 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((r1_ordinal1 X0 X1) \Leftrightarrow (\neg X1 \in X0))) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.((v1_relat_1 X1) \wedge ((\\ & v1_funct_1 X1) \wedge ((v5_ordinal1 X1) \wedge (v1_ordinal2 X1)))) \Rightarrow (\neg (r1_abian \\ & X0 X1) \wedge (\forall X2.(v3_ordinal1 X2) \Rightarrow (\neg (X2 \in k9_xtuple_0 (k3_ordinal6 \\ & X1)) \wedge (X0 = k1_funct_1 (k3_ordinal6 X1) X2)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.(v3_ordinal1 X0) \Rightarrow (\forall X1.(v3_ordinal1 X1) \Rightarrow ((X0 \in X1) \Leftrightarrow (r1_ordinal1 (k1_ordinal1 X0) X1))) \quad (4)$$

Assume the following.

$$\forall X0.(k9_xtuple_0 (k2_ordinal6 X0) = k1_ordinal6 X0) \wedge (k10_xtuple_0 (k2_ordinal6 X0) = k2_ordinal1 X0) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(((v5_ordinal1\ X0)\wedge((v1_relat_1\ X0)\wedge(v1_funct_1\ X0)\wedge(v1_ordinal2\ X0))))\wedge(v3_ordinal1\ X1)\Rightarrow(v3_ordinal1\ (k1_funct_1\ X0\ X1)) \quad (6)$$

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.

$$\forall X0.(v1_relat_1\ (k2_ordinal6\ X0))\wedge((v1_funct_1\ (k2_ordinal6\ X0))\wedge((v5_ordinal1\ (k2_ordinal6\ X0))\wedge((v1_ordinal2\ (k2_ordinal6\ X0))\wedge(v2_ordinal2\ (k2_ordinal6\ X0)))))) \quad (8)$$

Assume the following.

$$\forall X0.(v1_relat_1\ (k2_ordinal6\ X0))\wedge((v1_funct_1\ (k2_ordinal6\ X0))\wedge((v5_ordinal1\ (k2_ordinal6\ X0))\wedge(v1_ordinal2\ (k2_ordinal6\ X0)))) \quad (9)$$

Assume the following.

$$\forall X0.v3_ordinal1\ (k1_ordinal6\ X0) \quad (10)$$

Assume the following.

$$\forall X0.(((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge((v5_ordinal1\ X0)\wedge(v1_ordinal2\ X0))))\Rightarrow(k3_ordinal6\ X0 = k2_ordinal6\ (ReplSep\ (toset\ (\lambda X1 : \iota.m1_subset_1\ X1\ (k9_xtuple_0\ X0))\ (\lambda X1 : \iota.r1_abian\ X1\ X0)\ (\lambda X1 : \iota.X1)))))) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1)\Rightarrow(\neg X1 \in X0) \quad (12)$$

Theorem 1

$$\forall X0.(v3_ordinal1\ X0)\Rightarrow(\forall X1.(v3_ordinal1\ X1)\Rightarrow(\forall X2.(((v1_relat_1\ X2)\wedge((v1_funct_1\ X2)\wedge((v5_ordinal1\ X2)\wedge(v1_ordinal2\ X2))))\Rightarrow(((k1_ordinal1\ X0 \in k9_xtuple_0\ (k3_ordinal6\ X2))\wedge((r1_abian\ X1\ X2)\wedge(k1_funct_1\ (k3_ordinal6\ X2)\ X0 \in X1))))\Rightarrow(r1_ordinal1\ (k1_funct_1\ (k3_ordinal6\ X2)\ (k1_ordinal1\ X0))\ X1))))))$$