

t59_abcmiz_0

(TMY8T8puYct5BDpSATjE7kLxGaUDBnaDGsx)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_orders_2 : \iota \Rightarrow o$ be given. Let $v4_orders_2 : \iota \Rightarrow o$ be given. Let $v4_abcmiz_0 : \iota \Rightarrow o$ be given. Let $l3_abcmiz_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_abcmiz_0 : \iota \Rightarrow \iota$ be given. Let $r4_abcmiz_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r5_abcmiz_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $l1_abcmiz_0 : \iota \Rightarrow o$ be given. Let $l2_abcmiz_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $k7_abcmiz_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_abcmiz_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow ((X1 = k9_finseq_1 X0) \Leftrightarrow ((k3_finseq_1 X1 = np_1) \wedge (k1_funct_1 X1 np_1 = X0))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow ((X1 = k9_finseq_1 X0) \Leftrightarrow ((k4_finseq_1 X1 = k2_finseq_1 np_1) \wedge (k10_xtuple_0 X1 = k1_tarski X0))) \quad (2)$$

Assume the following.

$$(k2_finseq_1 np_1 = k1_tarski np_1) \wedge (k2_finseq_1 np_2 = k2_tarski np_1 np_2) \quad (3)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 \ X1 \ X0) \Leftrightarrow (m1_finseq_1 \ X1 \ X0) \quad (5)$$

Assume the following.

$$\forall X0. k9_finseq_1 \ X0 = k5_finseq_1 \ X0 \quad (6)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 \ X0) \wedge (m1_subset_1 \ X1 \ X0)) \Rightarrow \\ & (k12_finseq_1 \ X0 \ X1 = k5_finseq_1 \ X1) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. v1_finseq_1 \ (k5_finseq_1 \ X0) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v4_abcmiz_0 \ X0) \wedge (l1_abcmiz_0 \ X0)) \Rightarrow (\neg v1_xboole_0 \\ & (u1_abcmiz_0 \ X0)) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0. (l3_abcmiz_0 \ X0) \Rightarrow (l2_abcmiz_0 \ X0) \quad (11)$$

Assume the following.

$$\forall X0. (l2_abcmiz_0 \ X0) \Rightarrow ((l1_orders_2 \ X0) \wedge (l1_abcmiz_0 \ X0)) \quad (12)$$

Assume the following.

$$\forall X0. (v1_relat_1 \ (k9_finseq_1 \ X0)) \wedge (v1_funct_1 \ (k9_finseq_1 \ X0)) \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 \ X0) \wedge ((v3_orders_2 \\ & X0) \wedge ((v4_orders_2 \ X0) \wedge ((\neg v4_abcmiz_0 \ X0) \wedge (l2_abcmiz_0 \ X0)))))) \wedge \\ & ((m1_subset_1 \ X1 \ (u1_struct_0 \ X0)) \wedge (m1_finseq_1 \ X2 \ (u1_abcmiz_0 \\ & X0))) \Rightarrow (m2_finseq_1 \ (k7_abcmiz_0 \ X0 \ X1 \ X2) \ (u1_struct_0 \ X0)) \end{aligned} \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow (m2_finseq_1 (k12_finseq_1 X0 X1) X0) \quad (15)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v3_orders_2 X0)\wedge((v4_orders_2 \\ X0)\wedge((\neg v4_abcmiz_0 X0)\wedge(l3_abcmiz_0 X0))))))\Rightarrow(\forall X1.(m1_subset_1 \\ X1 (u1_struct_0 X0))\Rightarrow(\forall X2.(m2_finseq_1 X2 (u1_abcmiz_0 \\ X0))\Rightarrow((r5_abcmiz_0 X0 X1 X2)\Leftrightarrow(\forall X3.(v7_ordinal1 X3)\Rightarrow(\forall X4. \\ (m1_subset_1 X4 (u1_abcmiz_0 X0))\Rightarrow(\forall X5.(m1_subset_1 X5 \\ (u1_struct_0 X0))\Rightarrow(((X3 \in k4_finseq_1 X2)\wedge((X4 = k1_funct_1 X2 \\ X3)\wedge(X5 = k1_funct_1 (k7_abcmiz_0 X0 X1 X2) X3))\Rightarrow(r4_abcmiz_0 \\ X0 X5 X4)))))))))) \end{aligned} \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1_tarski X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow (X2 = X0)) \quad (17)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v3_orders_2 X0)\wedge((v4_orders_2 \\ X0)\wedge((\neg v4_abcmiz_0 X0)\wedge(l2_abcmiz_0 X0))))))\Rightarrow(\forall X1.(m1_subset_1 \\ X1 (u1_struct_0 X0))\Rightarrow(\forall X2.(m2_finseq_1 X2 (u1_abcmiz_0 \\ X0))\Rightarrow(\forall X3.(m2_finseq_1 X3 (u1_struct_0 X0))\Rightarrow((X3 = k7_abcmiz_0 \\ X0 X1 X2)\Leftrightarrow((k3_finseq_1 X3 = k2_nat_1 (k3_finseq_1 X2) np_1)\wedge(\\ (k1_funct_1 X3 np_1 = X1)\wedge(\forall X4.(m1_subset_1 X4 k5_numbers)\Rightarrow \\ (\forall X5.(m1_subset_1 X5 (u1_abcmiz_0 X0))\Rightarrow(\forall X6.(m1_subset_1 \\ X6 (u1_struct_0 X0))\Rightarrow(((X4 \in k4_finseq_1 X2)\wedge((X5 = k1_funct_1 \\ X2 X4)\wedge(X6 = k1_funct_1 X3 X4))\Rightarrow(k1_funct_1 X3 (k2_nat_1 X4 np_1) = \\ k5_abcmiz_0 X0 X6 X5)))))))))) \end{aligned} \quad (18)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (19)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v3_orders_2 X0)\wedge((v4_orders_2 \\ X0)\wedge((\neg v4_abcmiz_0 X0)\wedge(l3_abcmiz_0 X0))))))\Rightarrow(\forall X1.(m1_subset_1 \\ X1 (u1_struct_0 X0))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_abcmiz_0 \\ X0))\Rightarrow((r4_abcmiz_0 X0 X1 X2)\Leftrightarrow(r5_abcmiz_0 X0 X1 (k12_finseq_1 \\ (u1_abcmiz_0 X0) X2)))))) \end{aligned}$$