

t31_abcmiz_0

(TMLbwy6e1vKuTF1XQtHMx1gmuw5c2eqHkDg)

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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 $l2_abcmiz_0 : \iota \Rightarrow o$ 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 $k8_abcmiz_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_abcmiz_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k7_abcmiz_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $l1_abcmiz_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_relat_1 X2) \wedge ((v1_funct_1 \\ & X2) \wedge (v1_finseq_1 X2))) \Rightarrow ((X2 = k10_finseq_1 X0 X1) \Leftrightarrow ((k3_finseq_1 \\ & X2 = np_2) \wedge ((k1_funct_1 X2 np_1 = X0) \wedge (k1_funct_1 X2 np_2 = X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 \\ & X1))) \Rightarrow ((X1 = k9_finseq_1 X0) \Leftrightarrow ((k3_finseq_1 X1 = np_1) \wedge (k1_funct_1 \\ & X1 np_1 = X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ & X0) \wedge ((\neg v4_abcmiz_0 X0) \wedge (l2_abcmiz_0 X0)))))) \Rightarrow (\forall X1. (m1_subset_1 \\ & X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_abcmiz_0 \\ & X0)) \Rightarrow (k7_abcmiz_0 X0 X1 (k12_finseq_1 (u1_abcmiz_0 X0) X2) = k10_finseq_1 \\ & X1 (k5_abcmiz_0 X0 X1 X2)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & ((v2_xreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (4)$$

Assume the following.

$$k2_xcplx_0 \ np_1 \ np_1 = np_2 \quad (5)$$

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.

$$\forall X0. \forall X1. ((m1_subset_1 \ X0 \ k5_numbers) \wedge (v7_ordinal1 \ X1)) \Rightarrow (k2_nat_1 \ X0 \ X1 = k2_xcplx_0 \ X0 \ X1) \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 \ X0) \wedge (m1_subset_1 \ X1 \ X0)) \Rightarrow (k12_finseq_1 \ X0 \ X1 = k5_finseq_1 \ X1) \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. (v1_relat_1 \ (k10_finseq_1 \ X0 \ X1)) \wedge (v1_funct_1 \ (k10_finseq_1 \ X0 \ X1)) \quad (10)$$

Assume the following.

$$\forall X0. v1_finseq_1 \ (k5_finseq_1 \ X0) \quad (11)$$

Assume the following.

$$\forall X0. ((\neg v4_abcmiz_0 \ X0) \wedge (l1_abcmiz_0 \ X0)) \Rightarrow (\neg v1_xboole_0 \ (u1_abcmiz_0 \ X0)) \quad (12)$$

Assume the following.

$$\forall X0. \forall X1. v1_finseq_1 \ (k10_finseq_1 \ X0 \ X1) \quad (13)$$

Assume the following.

$$\forall X0. (l2_abcmiz_0 \ X0) \Rightarrow ((l1_orders_2 \ X0) \wedge (l1_abcmiz_0 \ X0)) \quad (14)$$

Assume the following.

$$\forall X0. (v1_relat_1 \ (k9_finseq_1 \ X0)) \wedge (v1_funct_1 \ (k9_finseq_1 \ X0)) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow (m2_finseq_1 (k12_finseq_1 X0 X1) X0) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.k10_finseq_1 X0 X1 = k7_finseq_1 (k9_finseq_1 X0) (k9_finseq_1 X1) \quad (17)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v3_orders_2 X0)\wedge((v4_orders_2 \\ X0)\wedge((\neg v4_abcmiz_0 X0)\wedge(l2_abcmiz_0 X0))))))\Rightarrow(\forall X1.(m1_subset_1 \\ X1 (u1_struct_0 X0))\Rightarrow(\forall X2.(m2_finseq_1 X2 (u1_abcmiz_0 \\ X0))\Rightarrow(k8_abcmiz_0 X0 X1 X2 = k1_funct_1 (k7_abcmiz_0 X0 X1 X2) (k2_nat_1 \\ (k3_finseq_1 X2) np_1)))) \end{aligned} \quad (18)$$

Assume the following.

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

Theorem 1

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0)\wedge((v3_orders_2 X0)\wedge((v4_orders_2 \\ X0)\wedge((\neg v4_abcmiz_0 X0)\wedge(l2_abcmiz_0 X0))))))\Rightarrow(\forall X1.(m1_subset_1 \\ X1 (u1_struct_0 X0))\Rightarrow(\forall X2.(m1_subset_1 X2 (u1_abcmiz_0 \\ X0))\Rightarrow(k8_abcmiz_0 X0 X1 (k12_finseq_1 (u1_abcmiz_0 X0) X2) = k5_abcmiz_0 \\ X0 X1 X2))) \end{aligned}$$