

t38_abcmiz_a (TMRQsckt- CuSCrmss2uFmXXW737x5skSmY5t)

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Let $v1_instalg1 : \iota \Rightarrow o$ be given. Let $v1_abcmiz_1 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ be given. Let $v3_abcmiz_1 : \iota \Rightarrow o$ be given. Let $m2_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $k13_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $v4_abcmiz_a : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $k3_pre_poly : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k16_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $k4_pre_poly : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v11_struct_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k7_abcmiz_1 : \iota$ be given. Let $np_1 : \iota$ be given. Let $k6_abcmiz_1 : \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_instalg1 X0) \wedge ((v1_abcmiz_1 X0) \wedge (l1_msualg_1 \\ & X0))) \Rightarrow ((k1_msualg_1 X0 (k15_abcmiz_1 X0) = k3_pre_poly (u1_struct_0 \\ & X0) (k13_abcmiz_1 X0)) \wedge ((k2_msualg_1 X0 (k15_abcmiz_1 X0) = k13_abcmiz_1 \\ & X0) \wedge ((k1_msualg_1 X0 (k16_abcmiz_1 X0) = k4_pre_poly (u1_struct_0 \\ & X0) (k13_abcmiz_1 X0) (k12_abcmiz_1 X0)) \wedge (k2_msualg_1 X0 (k16_abcmiz_1 \\ & X0) = k12_abcmiz_1 X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v11_struct_0 X0) \wedge ((v1_instalg1 X0) \wedge \\ & (l1_msualg_1 X0))) \wedge (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\ & (m2_abcmiz_1 X2 X0 X1) \Rightarrow (m1_subset_1 X2 (u4_struct_0 X0))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0.((v1_instalg1 X0) \wedge ((v1_abcmiz_1 X0) \wedge (l1_msualg_1 X0))) \Rightarrow (m1_subset_1 (k16_abcmiz_1 X0) (u4_struct_0 X0)) \tag{4}$$

Assume the following.

$$\forall X0.((v1_instalg1\ X0)\wedge((v1_abcmiz_1\ X0)\wedge(l1_msualg_1\ X0)))\Rightarrow(m1_subset_1\ (k15_abcmiz_1\ X0)\ (u4_struct_0\ X0)) \quad (5)$$

Assume the following.

$$\forall X0.((v1_instalg1\ X0)\wedge((v1_abcmiz_1\ X0)\wedge(l1_msualg_1\ X0)))\Rightarrow(m1_subset_1\ (k13_abcmiz_1\ X0)\ (u1_struct_0\ X0)) \quad (6)$$

Assume the following.

$$\forall X0.((v1_instalg1\ X0)\wedge((v1_abcmiz_1\ X0)\wedge(l1_msualg_1\ X0)))\Rightarrow(m1_subset_1\ (k12_abcmiz_1\ X0)\ (u1_struct_0\ X0)) \quad (7)$$

Assume the following.

$$k7_abcmiz_1 = np_1 \quad (8)$$

Assume the following.

$$k6_abcmiz_1 = k6_numbers \quad (9)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v11_struct_0\ X0)\wedge((v1_instalg1\ X0)\wedge(l1_msualg_1\ X0)))\Rightarrow(\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ X0))\Rightarrow((\exists X2. \\ (m1_subset_1\ X2\ (u4_struct_0\ X0))\wedge(k2_msualg_1\ X0\ X2 = X1))\Rightarrow(\forall X2. \\ (m1_subset_1\ X2\ (u4_struct_0\ X0))\Rightarrow((m2_abcmiz_1\ X2\ X0\ X1)\Leftrightarrow(k2_msualg_1\ X0\ X2 = X1)))))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.((v1_instalg1\ X0)\wedge((v1_abcmiz_1\ X0)\wedge(l1_msualg_1\ X0)))\Rightarrow(k13_abcmiz_1\ X0 = k7_abcmiz_1) \quad (11)$$

Assume the following.

$$\forall X0.((\neg v11_struct_0\ X0)\wedge((v1_instalg1\ X0)\wedge(l1_msualg_1\ X0)))\Rightarrow(\forall X1.(m1_subset_1\ X1\ (u4_struct_0\ X0))\Rightarrow((v4_abcmiz_a\ X1\ X0)\Leftrightarrow(k1_msualg_1\ X0\ X1 = k1_xboole_0))) \quad (12)$$

Assume the following.

$$\forall X0.((v1_instalg1\ X0)\wedge((v1_abcmiz_1\ X0)\wedge(l1_msualg_1\ X0)))\Rightarrow(k12_abcmiz_1\ X0 = k6_abcmiz_1) \quad (13)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0\ X0)\wedge((\neg v11_struct_0\ X0)\wedge((v1_instalg1\ X0)\wedge(l1_msualg_1\ X0))))\Rightarrow((v3_abcmiz_1\ X0)\Leftrightarrow(\exists X1.(m1_subset_1\ X1\ (u4_struct_0\ X0))\wedge(\exists X2.(m1_subset_1\ X2\ (u4_struct_0\ X0))\wedge((k2_msualg_1\ X0\ X1 = k6_abcmiz_1)\wedge((k1_msualg_1\ X0\ X1 = k1_xboole_0)\wedge((k2_msualg_1\ X0\ X2 = k7_abcmiz_1)\wedge(k1_msualg_1\ X0\ X2 = k1_xboole_0))))))) \end{aligned} \quad (14)$$

Assume the following.

$$\forall X0.(l1_msualg_1 X0) \Rightarrow (((v1_instalg1 X0) \wedge (v1_abcmiz_1 X0)) \Rightarrow ((\neg v2_struct_0 X0) \wedge ((\neg v11_struct_0 X0) \wedge (v1_instalg1 X0)))) \quad (15)$$

Theorem 1

$$\forall X0.((v1_instalg1 X0) \wedge ((v1_abcmiz_1 X0) \wedge (l1_msualg_1 X0))) \Rightarrow ((v3_abcmiz_1 X0) \Leftrightarrow (\exists X1.(m2_abcmiz_1 X1 X0 (k12_abcmiz_1 X0)) \wedge (\exists X2.(m2_abcmiz_1 X2 X0 (k13_abcmiz_1 X0)) \wedge ((v4_abcmiz_a X1 X0) \wedge (v4_abcmiz_a X2 X0))))))$$