

t136_abcmiz_1
(TMU125hQZN5Cg9D1qd4h3yoPq2Epv998E2i)

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Let $v1_instal1 : \iota \Rightarrow o$ be given. Let $v1_abcmiz_1 : \iota \Rightarrow o$ be given. Let $v3_abcmiz_1 : \iota \Rightarrow o$ be given. Let $l1_msualg_1 : \iota \Rightarrow o$ be given. Let $m1_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $k13_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_abcmiz_1 : \iota$ be given. Let $k34_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $k56_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k31_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k33_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $k16_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_card_3 : \iota \Rightarrow \iota$ be given. Let $u3_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_msafree3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k28_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $m4_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k55_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k35_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_trees_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_msualg_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k11_lang1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k36_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k30_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $k6_abcmiz_1 : \iota$ be given. Assume the following.

$$\forall X0.((v1_instal1 X0) \wedge ((v1_abcmiz_1 X0) \wedge (l1_msualg_1 X0))) \Rightarrow (k33_abcmiz_1 X0 = k16_abcmiz_1 X0) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (((v1_instal1 X0) \wedge ((v1_abcmiz_1 X0) \wedge ((v3_abcmiz_1 X0) \wedge (l1_msualg_1 X0)))) \wedge (m1_subset_1 X1 (u1_struct_0 X0))) \Rightarrow (\forall X2. (m1_abcmiz_1 X2 X0 X1) \Rightarrow (m1_subset_1 X2 (k3_card_3 (u3_msualg_1 X0) (k1_msafree3 X0) (k28_abcmiz_1 X0)))))) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_instalg1\ X0) \wedge ((v1_abcmiz_1\ X0) \wedge \\ & ((v3_abcmiz_1\ X0) \wedge (l1_msualg_1\ X0)))) \wedge ((v1_funct_1\ X1) \wedge (m1_subset_1 \\ & X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k2_abcmiz_1\ (k34_abcmiz_1\ X0)))))) \Rightarrow \\ & (m4_abcmiz_1\ (k55_abcmiz_1\ X0\ X1)\ X0\ (k28_abcmiz_1\ X0)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((v1_instalg1\ X0) \wedge \\ & ((v1_abcmiz_1\ X0) \wedge ((v3_abcmiz_1\ X0) \wedge (l1_msualg_1\ X0)))) \wedge ((\\ & m1_subset_1\ X1\ (u4_struct_0\ X0)) \wedge ((m1_subset_1\ X2\ (k3_card_3 \\ & (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0)))))) \wedge (m1_subset_1 \\ & X3\ (k3_card_3\ (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0)))))) \Rightarrow \\ & (m1_subset_1\ (k31_abcmiz_1\ X0\ X1\ X2\ X3)\ (k3_card_3\ (u3_msualg_1 \\ & X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0)))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. ((v1_instalg1\ X0) \wedge ((v1_abcmiz_1\ X0) \wedge (l1_msualg_1\ X0))) \Rightarrow (m1_subset_1\ (k16_abcmiz_1\ X0)\ (u4_struct_0\ X0)) \quad (5)$$

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.

$$\begin{aligned} & \forall X0. ((v1_instalg1\ X0) \wedge ((v1_abcmiz_1\ X0) \wedge ((v3_abcmiz_1 \\ & X0) \wedge (l1_msualg_1\ X0)))) \Rightarrow (\forall X1. ((v1_funct_1\ X1) \wedge (m1_subset_1 \\ & X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k2_abcmiz_1\ (k34_abcmiz_1\ X0)))))) \Rightarrow \\ & (\forall X2. (m1_subset_1\ X2\ (k3_card_3\ (u3_msualg_1\ X0\ (k1_msafree3 \\ & X0\ (k28_abcmiz_1\ X0)))))) \Rightarrow (k56_abcmiz_1\ X0\ X1\ X2 = k3_funct_2\ (k3_card_3 \\ & (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ (k3_card_3 \\ & (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ (k55_abcmiz_1 \\ & X0\ X1)\ X2)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_instalg1\ X0)\wedge((v1_abcmiz_1\ X0)\wedge((v3_abcmiz_1 \\
& X0)\wedge(l1_msualg_1\ X0))))\Rightarrow(\forall X1.((v1_funct_1\ X1)\wedge(m1_subset_1 \\
& X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k2_abcmiz_1\ (k34_abcmiz_1\ X0)))))\Rightarrow \\
& (\forall X2.(m4_abcmiz_1\ X2\ X0\ (k28_abcmiz_1\ X0))\Rightarrow((X2 = k55_abcmiz_1 \\
& X0\ X1)\Leftrightarrow((\forall X3.(m1_subset_1\ X3\ k2_abcmiz_1)\Rightarrow(((X3 \in k1_relset_1 \\
& k2_abcmiz_1\ X1)\Rightarrow(k3_funct_2\ (k3_card_3\ (u3_msualg_1\ X0\ (k1_msafree3 \\
& X0\ (k28_abcmiz_1\ X0))))\ (k3_card_3\ (u3_msualg_1\ X0\ (k1_msafree3 \\
& X0\ (k28_abcmiz_1\ X0))))\ X2\ (k35_abcmiz_1\ X3\ X0) = k1_funct_1\ X1\ X3))\wedge \\
& ((\neg X3 \in k1_relset_1\ k2_abcmiz_1\ X1)\Rightarrow(k3_funct_2\ (k3_card_3\ (u3_msualg_1 \\
& X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ (k3_card_3\ (u3_msualg_1 \\
& X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ X2\ (k35_abcmiz_1\ X3\ X0) = \\
& k35_abcmiz_1\ X3\ X0))))\wedge((\forall X3.((v2_abcmiz_1\ X3\ X0)\wedge(m1_subset_1 \\
& X3\ (u4_struct_0\ X0))\Rightarrow(\forall X4.(m1_trees_4\ X4\ (k3_card_3\ (\\
& u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ (k34_abcmiz_1 \\
& X0))\Rightarrow(\forall X5.(m1_trees_4\ X5\ (k3_card_3\ (u3_msualg_1\ X0\ (k1_msafree3 \\
& X0\ (k28_abcmiz_1\ X0))))\ (k34_abcmiz_1\ X0))\Rightarrow(((k3_finseq_1\ X4 = \\
& k3_finseq_1\ (k1_msualg_1\ X0\ X3))\wedge(X5 = k11_lang1\ (k3_card_3\ (u3_msualg_1 \\
& X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ (k3_card_3\ (u3_msualg_1 \\
& X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ X4\ X2))\Rightarrow(k3_funct_2\ (k3_card_3 \\
& (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ (k3_card_3 \\
& (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ X2\ (k36_abcmiz_1 \\
& X0\ X3\ X4) = k36_abcmiz_1\ X0\ X3\ X5))))\wedge((\forall X3.(m1_abcmiz_1 \\
& X3\ X0\ (k13_abcmiz_1\ X0))\Rightarrow(k3_funct_2\ (k3_card_3\ (u3_msualg_1 \\
& X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ (k3_card_3\ (u3_msualg_1 \\
& X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ X2\ (k30_abcmiz_1\ X0\ (k32_abcmiz_1 \\
& X0\ X3) = k30_abcmiz_1\ X0\ (k32_abcmiz_1\ X0)\ (k3_funct_2\ (k3_card_3 \\
& (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ (k3_card_3 \\
& (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ X2\ X3))\wedge \\
& (\forall X3.(m1_abcmiz_1\ X3\ X0\ (k13_abcmiz_1\ X0))\Rightarrow(\forall X4. \\
& (m1_abcmiz_1\ X4\ X0\ (k12_abcmiz_1\ X0))\Rightarrow(k3_funct_2\ (k3_card_3 \\
& (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ (k3_card_3 \\
& (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ X2\ (k31_abcmiz_1 \\
& X0\ (k33_abcmiz_1\ X0)\ X3\ X4) = k31_abcmiz_1\ X0\ (k33_abcmiz_1\ X0)\ (\\
& k3_funct_2\ (k3_card_3\ (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1 \\
& X0))))\ (k3_card_3\ (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1 \\
& X0))))\ X2\ X3)\ (k3_funct_2\ (k3_card_3\ (u3_msualg_1\ X0\ (k1_msafree3 \\
& X0\ (k28_abcmiz_1\ X0))))\ (k3_card_3\ (u3_msualg_1\ X0\ (k1_msafree3 \\
& X0\ (k28_abcmiz_1\ X0))))\ X2\ X4))))))))))
\end{aligned} \tag{9}$$

Assume the following.

$$\forall X0.((v1_instalg1\ X0)\wedge((v1_abcmiz_1\ X0)\wedge(l1_msualg_1\ X0)))\Rightarrow(k12_abcmiz_1\ X0 = k6_abcmiz_1) \tag{10}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_instal\!g_1 X0) \wedge ((v1_abcmiz_1 X0) \wedge ((v3_abcmiz_1 \\ & X0) \wedge (l1_msualg_1 X0)))) \Rightarrow (\forall X1.(m1_abcmiz_1 X1 X0 (k12_abcmiz_1 \\ & X0)) \Rightarrow (\forall X2.(m1_abcmiz_1 X2 X0 (k13_abcmiz_1 X0)) \Rightarrow (\forall X3. \\ & ((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 k2_abcmiz_1 \\ & (k34_abcmiz_1 X0)))))) \Rightarrow (k56_abcmiz_1 X0 X3 (k31_abcmiz_1 X0 (k33_abcmiz_1 \\ & X0) X2 X1) = k31_abcmiz_1 X0 (k33_abcmiz_1 X0) (k56_abcmiz_1 X0 X3 \\ & X2) (k56_abcmiz_1 X0 X3 X1)))))) \end{aligned}$$