

t135_abcmiz_1
(TMFCx4388Lt27e9quKsXJUDpbySCJpekdv1)

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Let $v1_instalg1 : \iota \Rightarrow o$ 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 $k13_abcmiz_1 : \iota \Rightarrow \iota$ 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 $k30_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $k15_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $k4_trees_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_abcmiz_1 : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_pre_poly : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $u4_struct_0 : \iota \Rightarrow \iota$ 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 $k12_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $k31_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k33_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $k7_abcmiz_1 : \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_instalg1 X0) \wedge ((v1_abcmiz_1 X0) \wedge ((v3_abcmiz_1 \\ & X0) \wedge (l1_msualg_1 X0)))) \Rightarrow (\forall X1.(m1_abcmiz_1 X1 X0 (k13_abcmiz_1 \\ & X0)) \Rightarrow ((m1_abcmiz_1 (k30_abcmiz_1 X0 (k15_abcmiz_1 X0) X1) X0 (\\ & k13_abcmiz_1 X0)) \wedge (k30_abcmiz_1 X0 (k15_abcmiz_1 X0) X1 = k4_trees_4 \\ & (k4_tarski k10_abcmiz_1 (u1_struct_0 X0)) (k3_pre_poly (k3_card_3 \\ & (u3_msualg_1 X0 (k1_msafree3 X0 (k28_abcmiz_1 X0)))) X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.((v1_instalg1 X0) \wedge ((v1_abcmiz_1 X0) \wedge (l1_msualg_1 X0))) \Rightarrow (k32_abcmiz_1 X0 = k15_abcmiz_1 X0) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_instal\!g1\ X0) \wedge ((v1_abcmiz_1\ X0) \wedge \\ & ((v3_abcmiz_1\ X0) \wedge (l1_msualg_1\ X0)))) \wedge (m1_subset_1\ X1\ (u1_struct_0 \\ & X0))) \Rightarrow (\forall X2. (m1_abcmiz_1\ X2\ X0\ X1) \Rightarrow (m1_subset_1\ X2\ (k3_card_3 \\ & (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_instal\!g1\ X0) \wedge ((v1_abcmiz_1\ X0) \wedge \\ & ((v3_abcmiz_1\ X0) \wedge (l1_msualg_1\ X0)))) \wedge ((v1_funct_1\ X1) \wedge (m1_subset_1 \\ & X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k2_abcmiz_1\ (k34_abcmiz_1\ X0)))))) \Rightarrow \\ & (m4_abcmiz_1\ (k55_abcmiz_1\ X0\ X1)\ X0\ (k28_abcmiz_1\ X0)) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. ((v1_instal\!g1\ X0) \wedge ((v1_abcmiz_1\ X0) \wedge (l1_msualg_1\ X0))) \Rightarrow (m1_subset_1\ (k13_abcmiz_1\ X0)\ (u1_struct_0\ X0)) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_instal\!g1\ X0) \wedge ((v1_abcmiz_1\ X0) \wedge ((v3_abcmiz_1 \\ & X0) \wedge (l1_msualg_1\ X0)))) \Rightarrow (\forall X1. ((v1_funct_1\ X1) \wedge (m1_subset_1 \\ & X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k2_abcmiz_1\ (k34_abcmiz_1\ X0)))))) \Rightarrow \\ & (\forall X2. (m1_subset_1\ X2\ (k3_card_3\ (u3_msualg_1\ X0\ (k1_msafree3 \\ & X0\ (k28_abcmiz_1\ X0)))))) \Rightarrow (k56_abcmiz_1\ X0\ X1\ X2 = k3_funct_2\ (k3_card_3 \\ & (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ (k3_card_3 \\ & (u3_msualg_1\ X0\ (k1_msafree3\ X0\ (k28_abcmiz_1\ X0))))\ (k55_abcmiz_1 \\ & X0\ X1)\ X2)) \end{aligned} \quad (6)$$

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{7}$$

Assume the following.

$$k7_abcmiz_1 = np_1 \tag{8}$$

Assume the following.

$$\forall X0.((v1_instalg1\ X0)\wedge((v1_abcmiz_1\ X0)\wedge(l1_msualg_1\ X0)))\Rightarrow(k13_abcmiz_1\ X0 = k7_abcmiz_1) \tag{9}$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_instalg1\ X0)\wedge((v1_abcmiz_1\ X0)\wedge((v3_abcmiz_1 \\ & X0)\wedge(l1_msualg_1\ X0))))\Rightarrow(\forall X1.(m1_abcmiz_1\ X1\ X0\ (k13_abcmiz_1 \\ & X0))\Rightarrow(\forall X2.((v1_funct_1\ X2)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1 \\ & (k2_zfmisc_1\ k2_abcmiz_1\ (k34_abcmiz_1\ X0))))))\Rightarrow(k56_abcmiz_1 \\ & X0\ X2\ (k30_abcmiz_1\ X0\ (k32_abcmiz_1\ X0)\ X1) = k30_abcmiz_1\ X0\ (k32_abcmiz_1 \\ & X0)\ (k56_abcmiz_1\ X0\ X2\ X1)))) \end{aligned}$$