

t86_abcmiz_1 (TM-
Peo84VqDCynDaEZPyr6uBbJGBgJo4XfNR)

October 27, 2020

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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_abcmiz_1 : \iota$ be given. Let $k45_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k35_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_msafree3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_trees_4 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $m1_abcmiz_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $l5_struct_0 : \iota \Rightarrow o$ be given. Let $k14_abcmiz_1 : \iota \Rightarrow \iota$ be given. Let $k8_abcmiz_1 : \iota$ be given. Let $np_2 : \iota$ be given. Let $v11_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (l1_msualg_1 X0) \Rightarrow (\forall X1. \forall X2. ((X1 \in u1_struct_0 X0) \Rightarrow (k1_funct_1 (k2_msafree3 X0 (k1_trees_4 (k4_tarski X2 X1))) \\ X1 = k1_tarski X2)) \wedge (\forall X3. (\neg (X3 = X1) \wedge (X1 \in u1_struct_0 X0)) \Rightarrow \\ (k1_funct_1 (k2_msafree3 X0 (k1_trees_4 (k4_tarski X2 X1))) X3 = \\ k1_xboole_0))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow (k6_domain_1 X0 X1 = k1_tarski X1) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 (u1_struct_0 X0)) \quad (4)$$

Assume the following.

$$\neg v1_xboole_0 \ k2_abcmiz_1 \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_instal_g1 \ X0) \wedge ((v1_abcmiz_1 \ X0) \wedge \\ & ((v3_abcmiz_1 \ X0) \wedge (l1_msualg_1 \ X0)))) \wedge (m1_subset_1 \ X1 \ (u1_struct_0 \\ & X0))) \Rightarrow (\forall X2. (m1_abcmiz_1 \ X2 \ X0 \ X1) \Rightarrow (m1_subset_1 \ X2 \ (k3_card_3 \\ & (u3_msualg_1 \ X0 \ (k1_msafree3 \ X0 \ (k28_abcmiz_1 \ X0))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0. (l5_struct_0 \ X0) \Rightarrow (l1_struct_0 \ X0) \quad (7)$$

Assume the following.

$$\forall X0. (l1_msualg_1 \ X0) \Rightarrow (l5_struct_0 \ X0) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 \ X0 \ k2_abcmiz_1) \wedge ((v1_instal_g1 \\ & X1) \wedge ((v1_abcmiz_1 \ X1) \wedge ((v3_abcmiz_1 \ X1) \wedge (l1_msualg_1 \ X1)))) \Rightarrow \\ & (m1_abcmiz_1 \ (k35_abcmiz_1 \ X0 \ X1) \ X1 \ (k14_abcmiz_1 \ X1)) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0. ((v1_instal_g1 \ X0) \wedge ((v1_abcmiz_1 \ X0) \wedge (l1_msualg_1 \ X0))) \Rightarrow (m1_subset_1 \ (k14_abcmiz_1 \ X0) \ (u1_struct_0 \ X0)) \quad (10)$$

Assume the following.

$$k8_abcmiz_1 = np_2 \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_instal_g1 \ X0) \wedge ((v1_abcmiz_1 \ X0) \wedge ((v3_abcmiz_1 \\ & X0) \wedge (l1_msualg_1 \ X0)))) \Rightarrow (\forall X1. (m1_subset_1 \ X1 \ (k3_card_3 \\ & (u3_msualg_1 \ X0 \ (k1_msafree3 \ X0 \ (k28_abcmiz_1 \ X0))))) \Rightarrow (k45_abcmiz_1 \\ & X0 \ X1 = k1_funct_1 \ (k2_msafree3 \ X0 \ X1) \ (k14_abcmiz_1 \ X0)) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0. (m1_subset_1 \ X0 \ k2_abcmiz_1) \Rightarrow (\forall X1. ((v1_instal_g1 \\ & X1) \wedge ((v1_abcmiz_1 \ X1) \wedge ((v3_abcmiz_1 \ X1) \wedge (l1_msualg_1 \ X1)))) \Rightarrow \\ & (k35_abcmiz_1 \ X0 \ X1 = k1_trees_4 \ (k4_tarski \ X0 \ k8_abcmiz_1)) \end{aligned} \quad (13)$$

Assume the following.

$$\forall X0. ((v1_instal_g1 \ X0) \wedge ((v1_abcmiz_1 \ X0) \wedge (l1_msualg_1 \ X0))) \Rightarrow (k14_abcmiz_1 \ X0 = k8_abcmiz_1) \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_msualg_1 \ X0) \Rightarrow (((v1_instal_g1 \ X0) \wedge (v1_abcmiz_1 \\ & X0)) \Rightarrow ((\neg v2_struct_0 \ X0) \wedge ((\neg v11_struct_0 \ X0) \wedge (v1_instal_g1 \ X0)))) \end{aligned} \quad (15)$$

Theorem 1

$$\forall X0.((v1_instalg1\ X0)\wedge((v1_abcmiz_1\ X0)\wedge((v3_abcmiz_1\ X0)\wedge(l1_msualg_1\ X0))))\Rightarrow(\forall X1.(m1_subset_1\ X1\ k2_abcmiz_1)\Rightarrow(k45_abcmiz_1\ X0\ (k35_abcmiz_1\ X1\ X0) = k6_domain_1\ k2_abcmiz_1\ X1))$$