

t8_amistd_4

(TMQQBtH25Gxot3WX9CaX8h1Hg8GRdngJmzX)

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Let $v1_setfam_1 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_zfmisc_1 : \iota \Rightarrow o$ be given. Let $k4_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_amistd_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_amistd_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_amistd_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_setfam_1 X0) \Rightarrow (\forall X1. ((\neg v2_struct_0 X1) \wedge \\ & ((v2_memstr_0 X1 X0) \wedge ((v3_memstr_0 X1 X0) \wedge (l1_extpro_1 X1 X0)))) \Rightarrow \\ & (\forall X2. (m1_subset_1 X2 (u1_compos_1 X1)) \Rightarrow (\forall X3. (m1_subset_1 \\ & X3 (u1_struct_0 X1)) \Rightarrow (\neg (v1_zfmisc_1 (k4_memstr_0 X0 X1 X3)) \wedge (\\ & X3 \in k4_amistd_4 X0 X1 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (k7_subset_1 X0 X1 X2 = k4_xboole_0 X1 X2) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_setfam_1 X0) \wedge (((\neg v2_struct_0 \\ & X1) \wedge ((v2_memstr_0 X1 X0) \wedge ((v3_memstr_0 X1 X0) \wedge (l1_extpro_1 X1 \\ & X0)))) \wedge (m1_subset_1 X2 (u1_compos_1 X1)))) \Rightarrow (m1_subset_1 (k4_amistd_4 \\ & X0 X1 X2) (k1_zfmisc_1 (u1_struct_0 X1))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_setfam_1 X0) \Rightarrow (\forall X1. ((\neg v2_struct_0 X1) \wedge \\ & ((v2_memstr_0 X1 X0) \wedge ((v3_memstr_0 X1 X0) \wedge (l1_extpro_1 X1 X0)))) \Rightarrow \\ & (\forall X2. (m1_subset_1 X2 (u1_compos_1 X1)) \Rightarrow (k5_amistd_4 X0 \\ & X1 X2 = k7_subset_1 (u1_struct_0 X1) (k4_amistd_4 X0 X1 X2) (k3_amistd_4 \\ & X0 X1 X2)))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(X2 = k4_xboole_0 X0 X1) \Leftrightarrow (\forall X3. \\ (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (\neg X3 \in X1))) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} \forall X0.(\neg v1_setfam_1 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge \\ ((v2_memstr_0 X1 X0) \wedge ((v3_memstr_0 X1 X0) \wedge (l1_extpro_1 X1 X0)))) \Rightarrow \\ (\forall X2.(m1_subset_1 X2 (u1_compos_1 X1)) \Rightarrow (\forall X3.(m1_subset_1 \\ X3 (u1_struct_0 X1)) \Rightarrow (\neg(v1_zfmisc_1 (k4_memstr_0 X0 X1 X3)) \wedge \\ X3 \in k5_amistd_4 X0 X1 X2)))))) \end{aligned}$$