

t7_amistd_2

(TMTTohBzXVF2pKS24zfXUsCk5QdjhKjBwiUA)

October 27, 2020

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 $v3_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_amistd_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_amistd_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v5_funct_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_extpro_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_compos_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_compos_0 : \iota \Rightarrow o$ be given. Let $v2_compos_0 : \iota \Rightarrow o$ be given. Let $v3_compos_0 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $l1_compos_1 : \iota \Rightarrow o$ be given. Let $v5_compos_0 : \iota \Rightarrow o$ be given. Let $l1_memstr_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_xboole_0 X0) \wedge ((v1_compos_0 X0) \wedge ((v2_compos_0 \\ & X0) \wedge (v3_compos_0 X0)))) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow (k5_compos_0 \\ & X0 X1 k6_numbers = X1)) \end{aligned} \tag{1}$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \tag{2}$$

Assume the following.

$$\forall X0. (v1_xcmplx_0 X0) \Rightarrow (k2_xcmplx_0 X0 k6_numbers = X0) \tag{3}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{4}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_compos_1 X0) \Rightarrow & ((v1_compos_0 (u1_compos_1 X0)) \wedge \\ & ((v2_compos_0 (u1_compos_1 X0)) \wedge ((v3_compos_0 (u1_compos_1 \\ & X0)) \wedge (v5_compos_0 (u1_compos_1 X0)))))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(l1_extpro_1 X1 X0) \Rightarrow ((l1_memstr_0 X1 X0) \wedge (l1_compos_1 X1)) \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_setfam_1 X0) \Rightarrow & (\forall X1.((\neg v2_struct_0 X1) \wedge \\ & ((v2_memstr_0 X1 X0) \wedge ((v3_memstr_0 X1 X0) \wedge ((v3_extpro_1 X1 X0) \wedge \\ & (l1_extpro_1 X1 X0)))))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_compos_1 \\ & X1)) \Rightarrow ((v3_amistd_2 X2 X0 X1) \Leftrightarrow (\forall X3.(v7_ordinal1 X3) \Rightarrow (\forall X4. \\ & (v7_ordinal1 X4) \Rightarrow (\forall X5.((v1_relat_1 X5) \wedge ((v4_relat_1 \\ & X5 (u1_struct_0 X1)) \wedge ((v1_funct_1 X5) \wedge ((v5_funct_1 X5 (k2_memstr_0 \\ & X0 X1)) \wedge (v1_partfun1 X5 (u1_struct_0 X1)))))) \Rightarrow (k2_nat_1 (k5_memstr_0 \\ & X0 X1 (k2_extpro_1 X0 X1 (k5_compos_0 (u1_compos_1 X1) X2 X3) X5)) \\ & X4 = k5_memstr_0 X0 X1 (k2_extpro_1 X0 X1 (k5_compos_0 (u1_compos_1 \\ & X1) X2 (k2_xcmplx_0 X3 X4)) (k9_memstr_0 X0 X1 X5 X4))))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0) \wedge (v1_xcmplx_0 X1)) \Rightarrow (k2_xcmplx_0 X0 X1 = k2_xcmplx_0 X1 X0) \quad (9)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (10)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xcmplx_0 X0) \quad (11)$$

Assume the following.

$$\forall X0.(v5_compos_0 X0) \Rightarrow (\neg v1_xboole_0 X0) \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_setfam_1 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge \\ & ((v2_memstr_0 X1 X0) \wedge ((v3_memstr_0 X1 X0) \wedge ((v3_extpro_1 X1 X0) \wedge \\ & ((v2_amistd_2 X1 X0) \wedge (l1_extpro_1 X1 X0)))))) \Rightarrow (\forall X2.((\\ & v3_amistd_2 X2 X0 X1) \wedge (m1_subset_1 X2 (u1_compos_1 X1))) \Rightarrow (\forall X3. \\ & (v7_ordinal1 X3) \Rightarrow (\forall X4.((v1_relat_1 X4) \wedge ((v4_relat_1 \\ & X4 (u1_struct_0 X1)) \wedge ((v1_funct_1 X4) \wedge ((v5_funct_1 X4 (k2_memstr_0 \\ & X0 X1)) \wedge (v1_partfun1 X4 (u1_struct_0 X1)))))) \Rightarrow (k2_nat_1 (k5_memstr_0 \\ & X0 X1 (k2_extpro_1 X0 X1 X2 X4) X3 = k5_memstr_0 X0 X1 (k2_extpro_1 \\ & X0 X1 (k5_compos_0 (u1_compos_1 X1) X2 X3) (k9_memstr_0 X0 X1 X4 X3)))))) \end{aligned}$$