

t35_ami_wstd (TM- PAL2RxjtRMP7E4MZu4pBbB6A7xwwSi7UA)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. 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 $v2_ami_wstd : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_extpro_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k7_ami_wstd : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ami_wstd : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_nat_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k3_ami_wstd : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_ami_wstd : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $k1_ami_wstd : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow (k7_nat_d (k2_xcmplx_0 X0 X1) X1 = X0)) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (2)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_setfam_1 X0) \wedge (((\neg v2_struct_0 X1) \wedge ((v2_memstr_0 X1 X0) \wedge ((v3_memstr_0 X1 X0) \wedge ((v2_ami_wstd X1 X0) \wedge (l1_extpro_1 X1 X0)))))) \wedge (v7_ordinal1 X2))) \Rightarrow (k3_ami_wstd X0 X1 X2 = k2_ami_wstd X0 X1 X2) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_numbers)\wedge(v7_ordinal1 X1))\Rightarrow(k2_nat_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (5)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (6)$$

Assume the following.

$$\neg v1_setfam_1 k4_ordinal1 \quad (7)$$

Assume the following.

$$\neg v1_setfam_1 k1_numbers \quad (8)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_setfam_1 X0)\wedge \\ & (((\neg v2_struct_0 X1)\wedge((v2_memstr_0 X1 X0)\wedge((v3_memstr_0 X1 X0)\wedge \\ & ((v2_ami_wstd X1 X0)\wedge(l1_extpro_1 X1 X0))))))\wedge((m1_subset_1 X2 \\ & k5_numbers)\wedge(v7_ordinal1 X3)))\Rightarrow(m2_subset_1 (k4_ami_wstd \\ & X0 X1 X2 X3) k1_numbers k5_numbers) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((\neg v1_setfam_1 X0)\wedge(((\neg v2_struct_0 \\ & X1)\wedge((v2_memstr_0 X1 X0)\wedge((v3_memstr_0 X1 X0)\wedge((v2_ami_wstd \\ & X1 X0)\wedge(l1_extpro_1 X1 X0))))))\wedge(v7_ordinal1 X2))\Rightarrow(m2_subset_1 \\ & (k3_ami_wstd X0 X1 X2) k1_numbers k5_numbers) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_numbers)\wedge(v7_ordinal1 X1))\Rightarrow(m2_subset_1 (k2_nat_1 X0 X1) k1_numbers k5_numbers) \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((\neg v1_setfam_1 X0)\wedge(((\neg v2_struct_0 \\ & X1)\wedge((v2_memstr_0 X1 X0)\wedge((v3_memstr_0 X1 X0)\wedge((v2_ami_wstd \\ & X1 X0)\wedge(l1_extpro_1 X1 X0))))))\wedge(v7_ordinal1 X2))\Rightarrow(v7_ordinal1 \\ & (k2_ami_wstd X0 X1 X2)) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_setfam_1 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge \\ & ((v2_memstr_0 X1 X0) \wedge ((v3_memstr_0 X1 X0) \wedge ((v2_ami_wstd X1 X0) \wedge \\ & (l1_extpro_1 X1 X0)))))) \Rightarrow (\forall X2.(m2_subset_1 X2 k1_numbers \\ & k5_numbers) \Rightarrow (\forall X3.(v7_ordinal1 X3) \Rightarrow (k4_ami_wstd X0 X1 \\ & X2 X3 = k1_ami_wstd X0 X1 (k2_nat_1 (k3_ami_wstd X0 X1 X2) X3)))))) \end{aligned} \quad (14)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_setfam_1 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge \\ & ((v2_memstr_0 X1 X0) \wedge ((v3_memstr_0 X1 X0) \wedge ((v2_ami_wstd X1 X0) \wedge \\ & (l1_extpro_1 X1 X0)))))) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow (\forall X3. \\ & (v7_ordinal1 X3) \Rightarrow ((X3 = k2_ami_wstd X0 X1 X2) \Leftrightarrow (k1_ami_wstd X0 X1 \\ & X3 = X2)))))) \end{aligned} \quad (15)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_setfam_1 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge \\ & ((v2_memstr_0 X1 X0) \wedge ((v3_memstr_0 X1 X0) \wedge ((v2_ami_wstd X1 X0) \wedge \\ & (l1_extpro_1 X1 X0)))))) \Rightarrow (\forall X2.(m2_subset_1 X2 k1_numbers \\ & k5_numbers) \Rightarrow (\forall X3.(v7_ordinal1 X3) \Rightarrow (k7_ami_wstd X0 X1 \\ & X2 X3 = k1_ami_wstd X0 X1 (k7_nat_d (k3_ami_wstd X0 X1 X2) X3)))))) \end{aligned} \quad (16)$$

Assume the following.

$$\forall X0.(\neg v1_setfam_1 X0) \Rightarrow (\neg v1_xboole_0 X0) \quad (17)$$

Assume the following.

$$\forall X0.(v6_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v7_ordinal1 X1)) \quad (18)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(\neg v1_setfam_1 X1) \Rightarrow (\\ & \forall X2.((\neg v2_struct_0 X2) \wedge ((v2_memstr_0 X2 X1) \wedge ((v3_memstr_0 \\ & X2 X1) \wedge ((v2_ami_wstd X2 X1) \wedge (l1_extpro_1 X2 X1)))))) \Rightarrow (\forall X3. \\ & (m2_subset_1 X3 k1_numbers k5_numbers) \Rightarrow (k7_ami_wstd X1 X2 (k4_ami_wstd \\ & X1 X2 X3 X0) X0 = X3)))) \end{aligned}$$