

t30_aofa_i00
(TMLD5ffwiMSHftZY79synnytcHdq8Cmwq3o)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_unialg_1 : \iota \Rightarrow o$ be given. Let $v3_unialg_1 : \iota \Rightarrow o$ be given. Let $v4_unialg_1 : \iota \Rightarrow o$ be given. Let $v3_aofa_000 : \iota \Rightarrow o$ be given. Let $v4_aofa_000 : \iota \Rightarrow o$ be given. Let $v5_aofa_000 : \iota \Rightarrow o$ be given. Let $v6_aofa_000 : \iota \Rightarrow o$ be given. Let $v2_aofa_i00 : \iota \Rightarrow o$ be given. Let $l1_unialg_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v4_card_3 : \iota \Rightarrow o$ be given. Let $m2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_numbers : \iota$ be given. Let $k9_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_aofa_i00 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_aofa_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_aofa_i00 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k21_aofa_i00 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k81_aofa_i00 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m3_aofa_i00 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k53_aofa_i00 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k42_aofa_i00 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$

be given. Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& X0) \wedge ((v4_unialg_1 X0) \wedge ((v3_aofa_000 X0) \wedge ((v4_aofa_000 X0) \wedge \\
& ((v5_aofa_000 X0) \wedge ((v6_aofa_000 X0) \wedge ((v2_aofa_i00 X0) \wedge (l1_unialg_1 \\
& X0)))))))))) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge (v4_card_3 X1)) \Rightarrow \\
& (\forall X2.(m2_funct_2 X2 X1 k4_numbers (k9_funct_2 X1 k4_numbers)) \Rightarrow \\
& (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (k9_funct_2 X1 k4_numbers))) \Rightarrow \\
& (\forall X4.((v1_aofa_i00 X4 X0 X1 X3) \wedge (m1_aofa_000 X4 X0 (k9_funct_2 \\
& X1 k4_numbers) X3)) \Rightarrow (\forall X5.(m1_aofa_i00 X5 X1 (u1_struct_0 \\
& X0) (k9_funct_2 X1 k4_numbers) X4) \Rightarrow (\forall X6.(m3_aofa_i00 X6 \\
& X0 X1 X3 X4) \Rightarrow ((k21_aofa_i00 X1 k4_numbers (k2_binop_1 (k9_funct_2 \\
& X1 k4_numbers) (u1_struct_0 X0) (k9_funct_2 X1 k4_numbers) X4 X2 \\
& (k53_aofa_i00 X0 X1 X3 X4 X5 X6)) X5 = k2_xcmplx_0 (k21_aofa_i00 X1 \\
& k4_numbers X2 X5) (k3_funct_2 (k9_funct_2 X1 k4_numbers) k4_numbers \\
& X6 X2)) \wedge (\forall X7.(m1_subset_1 X7 X1) \Rightarrow ((X7 \neq X5) \Rightarrow (k21_aofa_i00 \\
& X1 k4_numbers (k2_binop_1 (k9_funct_2 X1 k4_numbers) (u1_struct_0 \\
& X0) (k9_funct_2 X1 k4_numbers) X4 X2 (k53_aofa_i00 X0 X1 X3 X4 X5 X6)) \\
& X7 = k21_aofa_i00 X1 k4_numbers X2 X7))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& X0) \wedge ((v4_unialg_1 X0) \wedge ((v3_aofa_000 X0) \wedge ((v4_aofa_000 X0) \wedge \\
& ((v5_aofa_000 X0) \wedge ((v6_aofa_000 X0) \wedge ((v2_aofa_i00 X0) \wedge (l1_unialg_1 \\
& X0)))))))))) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge (v4_card_3 X1)) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k9_funct_2 X1 k4_numbers))) \Rightarrow \\
& (\forall X3.((v1_aofa_i00 X3 X0 X1 X2) \wedge (m1_aofa_000 X3 X0 (k9_funct_2 \\
& X1 k4_numbers) X2)) \Rightarrow (\forall X4.(m1_aofa_i00 X4 X1 (u1_struct_0 \\
& X0) (k9_funct_2 X1 k4_numbers) X3) \Rightarrow (\forall X5.(m2_funct_2 X5 \\
& X1 k4_numbers (k9_funct_2 X1 k4_numbers)) \Rightarrow (k3_funct_2 (k9_funct_2 \\
& X1 k4_numbers) k4_numbers (k42_aofa_i00 X0 X1 X2 X3 X4) X5 = k21_aofa_i00 \\
& X1 k4_numbers X5 X4))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. (((\neg v2_struct_0 \\
& X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 X0) \wedge ((v4_unialg_1 X0) \wedge \\
& ((v3_aofa_000 X0) \wedge ((v4_aofa_000 X0) \wedge ((v5_aofa_000 X0) \wedge ((v6_aofa_000 \\
& X0) \wedge ((v2_aofa_i00 X0) \wedge (l1_unialg_1 X0)))))))))) \wedge (((\neg v1_xboole_0 \\
& X1) \wedge (v4_card_3 X1)) \wedge ((m1_subset_1 X2 (k1_zfmisc_1 (k9_funct_2 \\
& X1 k4_numbers))) \wedge ((v1_aofa_i00 X3 X0 X1 X2) \wedge (m1_aofa_000 X3 X0 \\
& (k9_funct_2 X1 k4_numbers) X2)) \wedge (m1_aofa_i00 X4 X1 (u1_struct_0 \\
& X0) (k9_funct_2 X1 k4_numbers) X3)))) \Rightarrow (m3_aofa_i00 (k42_aofa_i00 \\
& X0 X1 X2 X3 X4) X0 X1 X2 X3)
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& X0) \wedge ((v4_unialg_1 X0) \wedge ((v3_aofa_000 X0) \wedge ((v4_aofa_000 X0) \wedge \\
& ((v5_aofa_000 X0) \wedge ((v6_aofa_000 X0) \wedge ((v2_aofa_i00 X0) \wedge (l1_unialg_1 \\
& X0)))))))))) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge (v4_card_3 X1)) \Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k9_funct_2 X1 k4_numbers))) \Rightarrow \\
& (\forall X3.((v1_aofa_i00 X3 X0 X1 X2) \wedge (m1_aofa_000 X3 X0 (k9_funct_2 \\
& X1 k4_numbers) X2)) \Rightarrow (\forall X4.(m1_aofa_i00 X4 X1 (u1_struct_0 \\
& X0) (k9_funct_2 X1 k4_numbers) X3) \Rightarrow (\forall X5.(m1_aofa_i00 X5 \\
& X1 (u1_struct_0 X0) (k9_funct_2 X1 k4_numbers) X3) \Rightarrow (k81_aofa_i00 \\
& X0 X1 X2 X3 X4 X5 = k53_aofa_i00 X0 X1 X2 X3 X4 (k42_aofa_i00 X0 X1 X2 X3 \\
& X5))))))
\end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_unialg_1 X0) \wedge ((v3_unialg_1 \\
& X0) \wedge ((v4_unialg_1 X0) \wedge ((v3_aofa_000 X0) \wedge ((v4_aofa_000 X0) \wedge \\
& ((v5_aofa_000 X0) \wedge ((v6_aofa_000 X0) \wedge ((v2_aofa_i00 X0) \wedge (l1_unialg_1 \\
& X0)))))))))) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge (v4_card_3 X1)) \Rightarrow \\
& (\forall X2.(m2_funct_2 X2 X1 k4_numbers (k9_funct_2 X1 k4_numbers)) \Rightarrow \\
& (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (k9_funct_2 X1 k4_numbers))) \Rightarrow \\
& (\forall X4.((v1_aofa_i00 X4 X0 X1 X3) \wedge (m1_aofa_000 X4 X0 (k9_funct_2 \\
& X1 k4_numbers) X3)) \Rightarrow (\forall X5.(m1_aofa_i00 X5 X1 (u1_struct_0 \\
& X0) (k9_funct_2 X1 k4_numbers) X4) \Rightarrow (\forall X6.(m1_aofa_i00 X6 \\
& X1 (u1_struct_0 X0) (k9_funct_2 X1 k4_numbers) X4) \Rightarrow ((k21_aofa_i00 \\
& X1 k4_numbers (k2_binop_1 (k9_funct_2 X1 k4_numbers) (u1_struct_0 \\
& X0) (k9_funct_2 X1 k4_numbers) X4 X2 (k81_aofa_i00 X0 X1 X3 X4 X5 X6)) \\
& X5 = k2_xcmplx_0 (k21_aofa_i00 X1 k4_numbers X2 X5) (k21_aofa_i00 \\
& X1 k4_numbers X2 X6)) \wedge (\forall X7.(m1_subset_1 X7 X1) \Rightarrow ((X7 \neq X5) \Rightarrow \\
& (k21_aofa_i00 X1 k4_numbers (k2_binop_1 (k9_funct_2 X1 k4_numbers) \\
& (u1_struct_0 X0) (k9_funct_2 X1 k4_numbers) X4 X2 (k81_aofa_i00 \\
& X0 X1 X3 X4 X5 X6)) X7 = k21_aofa_i00 X1 k4_numbers X2 X7))))))
\end{aligned}$$