

t103_aofa_000

(TMb23ao6r1YWhYMeT2wrbhnTP7g95nGnLMY)

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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 $v2_struct_0 : \iota \Rightarrow o$ 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 $v3_freealg : \iota \Rightarrow o$ 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 $v12_aofa_000 : \iota \Rightarrow o$ be given. Let $l1_unialg_1 : \iota \Rightarrow o$ be given. Let $m1_aofa_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_aofa_000 : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k21_aofa_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ & X0)) \Rightarrow (\forall X2. ((\neg v2_struct_0 X2) \wedge (v2_unialg_1 X2) \wedge (v3_unialg_1 \\ & X2) \wedge (v4_unialg_1 X2) \wedge (v3_freealg X2) \wedge (v3_aofa_000 X2) \wedge \\ & (v4_aofa_000 X2) \wedge (v5_aofa_000 X2) \wedge (v6_aofa_000 X2) \wedge (v12_aofa_000 \\ & X2) \wedge (l1_unialg_1 X2)))))) \Rightarrow (\forall X3. (m1_aofa_000 X3 \\ & X2 X0 X1) \Rightarrow (\forall X4. (m1_aofa_000 X4 X2 X0 X1) \Rightarrow ((r2_relset_1 (\\ & k2_zfmisc_1 X0 (u1_struct_0 X2)) X0 (k2_partfun1 (k2_zfmisc_1 \\ & X0 (u1_struct_0 X2)) X0 X3 (k2_zfmisc_1 X0 (k18_aofa_000 X2))) (\\ & k2_partfun1 (k2_zfmisc_1 X0 (u1_struct_0 X2)) X0 X4 (k2_zfmisc_1 \\ & X0 (k18_aofa_000 X2)))) \Rightarrow (\forall X5. (m1_subset_1 X5 (u1_struct_0 \\ & X2)) \Rightarrow (\forall X6. (m1_subset_1 X6 X0) \Rightarrow ((k4_tarski X6 X5 \in k21_aofa_000 \\ & X2 X0 X1 X3) \Rightarrow ((k4_tarski X6 X5 \in k21_aofa_000 X2 X0 X1 X4) \wedge (k2_binop_1 \\ & X0 (u1_struct_0 X2) X0 X3 X6 X5 = k2_binop_1 X0 (u1_struct_0 X2) X0 \\ & X4 X6 X5)))))))))) \end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ & X0)) \Rightarrow (\forall X2.((\neg v2_struct_0 X2) \wedge ((v2_unialg_1 X2) \wedge ((v3_unialg_1 \\ & X2) \wedge ((v4_unialg_1 X2) \wedge ((v3_freealg X2) \wedge ((v3_aofa_000 X2) \wedge \\ & (v4_aofa_000 X2) \wedge ((v5_aofa_000 X2) \wedge ((v6_aofa_000 X2) \wedge ((v12_aofa_000 \\ & X2) \wedge (l1_unialg_1 X2)))))))))) \Rightarrow (\forall X3.(m1_aofa_000 X3 \\ & X2 X0 X1) \Rightarrow (\forall X4.(m1_aofa_000 X4 X2 X0 X1) \Rightarrow ((r2_relset_1 (\\ & k2_zfmisc_1 X0 (u1_struct_0 X2)) X0 (k2_partfun1 (k2_zfmisc_1 \\ & X0 (u1_struct_0 X2)) X0 X3 (k2_zfmisc_1 X0 (k18_aofa_000 X2))) (\\ & k2_partfun1 (k2_zfmisc_1 X0 (u1_struct_0 X2)) X0 X4 (k2_zfmisc_1 \\ & X0 (k18_aofa_000 X2)))) \Rightarrow (\forall X5.(m1_subset_1 X5 X0) \Rightarrow (\forall X6. \\ & (m1_subset_1 X6 (u1_struct_0 X2)) \Rightarrow ((k4_tarski X5 X6 \in k21_aofa_000 \\ & X2 X0 X1 X3) \Rightarrow (k2_binop_1 X0 (u1_struct_0 X2) X0 X3 X5 X6 = k2_binop_1 \\ & X0 (u1_struct_0 X2) X0 X4 X5 X6)))))))))) \end{aligned}$$