

t6_reloc

(TMS5w56Hfv2AZB38Q4ZX1VnFmchJFBMsF1L)

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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 $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_compos_1 : \iota \Rightarrow \iota$ be given. Let $k1_ami_3 : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v2_compos_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ 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 $np_2 : \iota$ be given. Let $v4_extpro_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_compos_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k5_extpro_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_compos_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_extpro_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_relat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_memstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_funct_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be

given. Assume the following.

$$\begin{aligned}
& \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
& ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k5_numbers) \wedge ((v5_relat_1 X1 \\
& (u1_compos_1 k1_ami_3)) \wedge ((v1_funct_1 X1) \wedge ((v1_finset_1 X1) \wedge \\
& (\neg v2_compos_1 X1 k1_ami_3)))))) \Rightarrow (\forall X2. ((\neg v1_xboole_0 \\
& X2) \wedge ((v1_relat_1 X2) \wedge ((v4_relat_1 X2 (u1_struct_0 k1_ami_3)) \wedge \\
& ((v1_funct_1 X2) \wedge ((v5_funct_1 X2 (k2_memstr_0 np_2 k1_ami_3)) \wedge \\
& ((v1_finset_1 X2) \wedge (v4_extpro_1 X2 np_2 k1_ami_3 X1)))))) \Rightarrow (\\
& \forall X3. ((v1_relat_1 X3) \wedge ((v4_relat_1 X3 (u1_struct_0 k1_ami_3)) \wedge \\
& ((v1_funct_1 X3) \wedge ((v5_funct_1 X3 (k2_memstr_0 np_2 k1_ami_3)) \wedge \\
& (v1_partfun1 X3 (u1_struct_0 k1_ami_3)))))) \Rightarrow (\forall X4. ((v1_relat_1 \\
& X4) \wedge ((v4_relat_1 X4 (u1_struct_0 k1_ami_3)) \wedge ((v1_funct_1 X4) \wedge \\
& ((v5_funct_1 X4 (k2_memstr_0 np_2 k1_ami_3)) \wedge (v1_partfun1 X4 \\
& (u1_struct_0 k1_ami_3)))))) \Rightarrow (((r1_tarski X2 X3) \wedge (r1_tarski \\
& (k9_memstr_0 np_2 k1_ami_3 X2 X0) X4)) \Rightarrow (\forall X5. ((v1_relat_1 \\
& X5) \wedge ((v4_relat_1 X5 k5_numbers) \wedge ((v5_relat_1 X5 (u1_compos_1 \\
& k1_ami_3)) \wedge ((v1_funct_1 X5) \wedge (v1_partfun1 X5 k5_numbers)))))) \Rightarrow \\
& (\forall X6. ((v1_relat_1 X6) \wedge ((v4_relat_1 X6 k5_numbers) \wedge ((\\
& v5_relat_1 X6 (u1_compos_1 k1_ami_3)) \wedge ((v1_funct_1 X6) \wedge (v1_partfun1 \\
& X6 k5_numbers)))))) \Rightarrow (((r1_tarski X1 X5) \wedge (r1_tarski (k6_compos_1 \\
& k1_ami_3 X1 X0) X6)) \Rightarrow (\forall X7. (m2_subset_1 X7 k1_numbers k5_numbers) \Rightarrow \\
& ((k2_nat_1 (k5_memstr_0 np_2 k1_ami_3 (k5_extpro_1 np_2 k1_ami_3 \\
& X5 X3 X7)) X0 = k5_memstr_0 np_2 k1_ami_3 (k5_extpro_1 np_2 k1_ami_3 \\
& X6 X4 X7)) \wedge ((k5_compos_0 (u1_compos_1 k1_ami_3) (k3_extpro_1 \\
& np_2 k1_ami_3 X5 (k5_extpro_1 np_2 k1_ami_3 X5 X3 X7)) X0 = k3_extpro_1 \\
& np_2 k1_ami_3 X6 (k5_extpro_1 np_2 k1_ami_3 X6 X4 X7)) \wedge ((k5_relat_1 \\
& (k5_extpro_1 np_2 k1_ami_3 X5 X3 X7) (k9_xtuple_0 (k6_memstr_0 \\
& np_2 k1_ami_3 X2)) = k5_relat_1 (k5_extpro_1 np_2 k1_ami_3 X6 \\
& X4 X7) (k9_xtuple_0 (k6_memstr_0 np_2 k1_ami_3 X2))) \wedge (k6_memstr_0 \\
& np_2 k1_ami_3 (k5_extpro_1 np_2 k1_ami_3 X5 (k1_funct_4 X3 (k6_memstr_0 \\
& np_2 k1_ami_3 X4)) X7) = k6_memstr_0 np_2 k1_ami_3 (k5_extpro_1 \\
& np_2 k1_ami_3 X6 X4 X7)))))))))
\end{aligned} \tag{1}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
& ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 k5_numbers) \wedge ((v5_relat_1 X1 \\
& (u1_compos_1 k1_ami_3)) \wedge ((v1_funct_1 X1) \wedge ((v1_finset_1 X1) \wedge \\
& (\neg v2_compos_1 X1 k1_ami_3)))))) \Rightarrow (\forall X2. ((\neg v1_xboole_0 \\
& X2) \wedge ((v1_relat_1 X2) \wedge ((v4_relat_1 X2 (u1_struct_0 k1_ami_3)) \wedge \\
& ((v1_funct_1 X2) \wedge ((v5_funct_1 X2 (k2_memstr_0 np_2 k1_ami_3)) \wedge \\
& ((v1_finset_1 X2) \wedge (v4_extpro_1 X2 np_2 k1_ami_3 X1)))))) \Rightarrow (\\
& \forall X3. ((v1_relat_1 X3) \wedge ((v4_relat_1 X3 (u1_struct_0 k1_ami_3)) \wedge \\
& ((v1_funct_1 X3) \wedge ((v5_funct_1 X3 (k2_memstr_0 np_2 k1_ami_3)) \wedge \\
& (v1_partfun1 X3 (u1_struct_0 k1_ami_3)))))) \Rightarrow (\forall X4. ((v1_relat_1 \\
& X4) \wedge ((v4_relat_1 X4 (u1_struct_0 k1_ami_3)) \wedge ((v1_funct_1 X4) \wedge \\
& ((v5_funct_1 X4 (k2_memstr_0 np_2 k1_ami_3)) \wedge (v1_partfun1 X4 \\
& (u1_struct_0 k1_ami_3)))))) \Rightarrow (((k4_struct_0 k1_ami_3 \in k9_xtuple_0 \\
& X2) \wedge (r1_tarski X2 X3) \wedge (r1_tarski (k9_memstr_0 np_2 k1_ami_3 \\
& X2 X0) X4)) \Rightarrow (\forall X5. ((v1_relat_1 X5) \wedge ((v4_relat_1 X5 k5_numbers) \wedge \\
& ((v5_relat_1 X5 (u1_compos_1 k1_ami_3)) \wedge ((v1_funct_1 X5) \wedge (v1_partfun1 \\
& X5 k5_numbers)))))) \Rightarrow (\forall X6. ((v1_relat_1 X6) \wedge ((v4_relat_1 \\
& X6 k5_numbers) \wedge ((v5_relat_1 X6 (u1_compos_1 k1_ami_3)) \wedge ((v1_funct_1 \\
& X6) \wedge (v1_partfun1 X6 k5_numbers)))))) \Rightarrow (((r1_tarski X1 X5) \wedge (r1_tarski \\
& (k6_compos_1 k1_ami_3 X1 X0) X6)) \Rightarrow (\forall X7. (m2_subset_1 X7 \\
& k1_numbers k5_numbers) \Rightarrow (k2_nat_1 (k5_memstr_0 np_2 k1_ami_3 \\
& (k5_extpro_1 np_2 k1_ami_3 X5 X3 X7)) X0 = k5_memstr_0 np_2 k1_ami_3 \\
& (k5_extpro_1 np_2 k1_ami_3 X6 X4 X7))))))
\end{aligned}$$