

t58_comput_1
(TMFemVPHSH4pseMiCpsan1Nxmna1xtfjCtz)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_2 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v4_valued_0 : \iota \Rightarrow o$ be given. Let $v2_margrel1 : \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k19_margrel1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k8_comput_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_comput_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_recldef_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let

$k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 k5_numbers) \Rightarrow (\forall X2.((\neg v1_xboole_0 X2) \wedge ((v1_relat_1 \\
& X2) \wedge ((v4_relat_1 X2 (k3_finseq_2 k5_numbers)) \wedge ((v1_funct_1 \\
& X2) \wedge ((v4_valued_0 X2) \wedge (v2_margrel1 X2)))))) \Rightarrow (\forall X3.((\\
& \neg v1_xboole_0 X3) \wedge ((v1_relat_1 X3) \wedge ((v4_relat_1 X3 (k3_finseq_2 \\
& k5_numbers)) \wedge ((v1_funct_1 X3) \wedge ((v4_valued_0 X3) \wedge (v2_margrel1 \\
& X3)))))) \Rightarrow (\forall X4.(m2_finseq_2 X4 k5_numbers (k4_finseq_2 \\
& (k2_nat_1 (k19_margrel1 X2) np_1) k5_numbers)) \Rightarrow ((X0 \in k4_finseq_1 \\
& X4) \Rightarrow (((k8_comput_1 (k2_nat_1 (k19_margrel1 X2) np_1) X4 X0 k6_numbers \in \\
& k1_relset_1 (k3_finseq_2 k5_numbers) (k7_comput_1 X2 X3 X0)) \Rightarrow \\
& (k2_finseq_3 X0 X4 \in k1_relset_1 (k3_finseq_2 k5_numbers) X2)) \wedge \\
& (((k2_finseq_3 X0 X4 \in k1_relset_1 (k3_finseq_2 k5_numbers) X2) \Rightarrow \\
& (k8_comput_1 (k2_nat_1 (k19_margrel1 X2) np_1) X4 X0 k6_numbers \in \\
& k1_relset_1 (k3_finseq_2 k5_numbers) (k7_comput_1 X2 X3 X0))) \wedge \\
& (((k8_comput_1 (k2_nat_1 (k19_margrel1 X2) np_1) X4 X0 k6_numbers \in \\
& k1_relset_1 (k3_finseq_2 k5_numbers) (k7_comput_1 X2 X3 X0)) \Rightarrow \\
& (k1_recdef_1 (k7_comput_1 X2 X3 X0) (k8_comput_1 (k2_nat_1 (k19_margrel1 \\
& X2) np_1) X4 X0 k6_numbers) = k1_recdef_1 X2 (k2_finseq_3 X0 X4))) \wedge \\
& (((k8_comput_1 (k2_nat_1 (k19_margrel1 X2) np_1) X4 X0 (k2_nat_1 \\
& X1 np_1) \in k1_relset_1 (k3_finseq_2 k5_numbers) (k7_comput_1 \\
& X2 X3 X0)) \Rightarrow ((k8_comput_1 (k2_nat_1 (k19_margrel1 X2) np_1) X4 \\
& X0 X1 \in k1_relset_1 (k3_finseq_2 k5_numbers) (k7_comput_1 X2 X3 \\
& X0)) \wedge (k8_finseq_1 k5_numbers (k8_comput_1 (k2_nat_1 (k19_margrel1 \\
& X2) np_1) X4 X0 X1) (k12_finseq_1 k5_numbers (k1_recdef_1 (k7_comput_1 \\
& X2 X3 X0) (k8_comput_1 (k2_nat_1 (k19_margrel1 X2) np_1) X4 X0 X1))) \in \\
& k1_relset_1 (k3_finseq_2 k5_numbers) X3))) \wedge (((k8_comput_1 \\
& (k2_nat_1 (k19_margrel1 X2) np_1) X4 X0 X1 \in k1_relset_1 (k3_finseq_2 \\
& k5_numbers) (k7_comput_1 X2 X3 X0)) \wedge (k8_finseq_1 k5_numbers (\\
& k8_comput_1 (k2_nat_1 (k19_margrel1 X2) np_1) X4 X0 X1) (k12_finseq_1 \\
& k5_numbers (k1_recdef_1 (k7_comput_1 X2 X3 X0) (k8_comput_1 (k2_nat_1 \\
& (k19_margrel1 X2) np_1) X4 X0 X1))) \in k1_relset_1 (k3_finseq_2 \\
& k5_numbers) X3)) \Rightarrow (k8_comput_1 (k2_nat_1 (k19_margrel1 X2) np_1) \\
& X4 X0 (k2_nat_1 X1 np_1) \in k1_relset_1 (k3_finseq_2 k5_numbers) \\
& (k7_comput_1 X2 X3 X0))) \wedge ((k8_comput_1 (k2_nat_1 (k19_margrel1 \\
& X2) np_1) X4 X0 (k2_nat_1 X1 np_1) \in k1_relset_1 (k3_finseq_2 k5_numbers) \\
& (k7_comput_1 X2 X3 X0)) \Rightarrow (k1_recdef_1 (k7_comput_1 X2 X3 X0) (k8_comput_1 \\
& (k2_nat_1 (k19_margrel1 X2) np_1) X4 X0 (k2_nat_1 X1 np_1)) = k1_recdef_1 \\
& X3 (k8_finseq_1 k5_numbers (k8_comput_1 (k2_nat_1 (k19_margrel1 \\
& X2) np_1) X4 X0 X1) (k12_finseq_1 k5_numbers (k1_recdef_1 (k7_comput_1 \\
& X2 X3 X0) (k8_comput_1 (k2_nat_1 (k19_margrel1 X2) np_1) X4 X0 X1))))))))))))) \\
& (1)
\end{aligned}$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.((\neg v1_xboole_0 \\ & X1) \wedge ((v1_relat_1 X1) \wedge ((v4_relat_1 X1 (k3_finseq_2 k5_numbers)) \wedge \\ & ((v1_funct_1 X1) \wedge ((v4_valued_0 X1) \wedge (v2_margrel1 X1)))))) \Rightarrow (\\ & \quad \forall X2.((\neg v1_xboole_0 X2) \wedge ((v1_relat_1 X2) \wedge ((v4_relat_1 \\ & X2 (k3_finseq_2 k5_numbers)) \wedge ((v1_funct_1 X2) \wedge ((v4_valued_0 \\ & X2) \wedge (v2_margrel1 X2)))))) \Rightarrow (\forall X3.(m2_finseq_2 X3 k5_numbers \\ & (k4_finseq_2 (k2_nat_1 (k19_margrel1 X1) np_1) k5_numbers)) \Rightarrow \\ & ((X0 \in k4_finseq_1 X3) \Rightarrow ((k8_comput_1 (k2_nat_1 (k19_margrel1 \\ & X1) np_1) X3 X0 k6_numbers \in k1_relset_1 (k3_finseq_2 k5_numbers) \\ & (k7_comput_1 X1 X2 X0)) \Leftrightarrow (k2_finseq_3 X0 X3 \in k1_relset_1 (k3_finseq_2 \\ & k5_numbers) X1)))))) \end{aligned}$$