

t52_glib_001

(TMXcvZnGBdyhfLPVk4rzEchSwiEd9kHydYm)

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Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_glib_000 : \iota \Rightarrow o$ be given. Let $m3_glib_001 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_glib_000 : \iota \Rightarrow \iota$ be given. Let $k7_glib_000 : \iota \Rightarrow \iota$ be given. Let $k20_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((v1_relat_1 X0) \wedge \\ & ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 X0) \wedge ((v1_finset_1 \\ & X0) \wedge (v1_glib_000 X0)))))) \wedge ((m3_glib_001 X1 X0) \wedge ((m1_subset_1 \\ & X2 k5_numbers) \wedge (m1_subset_1 X3 k5_numbers)))) \Rightarrow (k20_glib_001 \\ & X0 X1 X2 X3 = k9_glib_001 X0 X1 X2 X3) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1. (m3_glib_001 \\ & X1 X0) \Rightarrow (\forall X2. (m1_subset_1 X2 k5_numbers) \Rightarrow (r2_relset_1 \\ & k5_numbers (k2_xboole_0 (k6_glib_000 X0) (k7_glib_000 X0)) (k9_glib_001 \\ & X0 X1 X2 X2) X1))) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1. (m3_glib_001 \\ & X1 X0) \Rightarrow (\forall X2. (m1_subset_1 X2 k5_numbers) \Rightarrow (r2_relset_1 \\ & k5_numbers (k2_xboole_0 (k6_glib_000 X0) (k7_glib_000 X0)) (k20_glib_001 \\ & X0 X1 X2 X2) X1))) \end{aligned}$$