

t13_glib_003
(TMJYs213HTa44PQcyXbtSn5ivXp4GbZ8yWZ)

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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 $v1_glib_003 : \iota \Rightarrow o$ be given. Let $m3_glib_001 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k8_glib_003 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k15_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k12_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_glib_003 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge \\ & ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v1_glib_003 \\ & X0)))))) \wedge (m3_glib_001 X1 X0)) \Rightarrow ((v1_relat_1 (k8_glib_003 X0 X1)) \wedge \\ & ((v1_funct_1 (k8_glib_003 X0 X1)) \wedge (v1_finseq_1 (k8_glib_003 \\ & X0 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v1_glib_003 X0)))))) \Rightarrow \\ & (\forall X1. (m3_glib_001 X1 X0) \Rightarrow (\forall X2. ((v1_relat_1 X2) \wedge \\ & ((v1_funct_1 X2) \wedge (v1_finseq_1 X2)))) \Rightarrow ((X2 = k8_glib_003 X0 X1) \Leftrightarrow \\ & ((k3_finseq_1 X2 = k3_finseq_1 (k12_glib_001 X0 X1)) \wedge (\forall X3. \\ & (v7_ordinal1 X3) \Rightarrow ((r1_xxreal_0 np_1 X3) \wedge (r1_xxreal_0 X3 (k3_finseq_1 \\ & X2)))) \Rightarrow (k1_funct_1 X2 X3 = k1_funct_1 (k5_glib_003 X0) (k1_funct_1 \\ & (k12_glib_001 X0 X1) X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1. (m3_glib_001 \\ & X1 X0) \Rightarrow (k15_glib_001 X0 X1 = k3_finseq_1 (k12_glib_001 X0 X1))) \end{aligned} \quad (3)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v1_glib_003 X0)))))) \Rightarrow \\ (\forall X1.(m3_glib_001 X1 X0) \Rightarrow (k3_finseq_1 (k8_glib_003 X0 \\ X1) = k15_glib_001 X0 X1)) \end{aligned}$$