

t30_glib_003 (TMbtErKTm-
rGbpj4k3BcW5kt4QUStKQuDWCH)

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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 $v8_glib_003 : \iota \Rightarrow o$ be given. Let $m3_glib_001 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m4_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_glib_003 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_rvsum_1 : \iota \Rightarrow \iota$ be given. Let $k1_glib_003 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_glib_003 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_glib_003 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 k1_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 (k1_zfmisc_1 X0)) \Rightarrow ((\forall X2.(m2_subset_1 X2 k1_numbers \\ & k5_numbers) \Rightarrow ((X2 \in k4_finseq_1 X0) \Rightarrow (r1_xxreal_0 k6_numbers (\\ & k1_seq_1 X0 X2)))) \Rightarrow (r1_xxreal_0 (k18_rvsum_1 (k1_glib_003 k1_numbers \\ & X0 X1)) (k18_rvsum_1 X0)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ & X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge ((v1_glib_003 X0) \wedge \\ & (v8_glib_003 X0))))))) \Rightarrow (\forall X1.(m3_glib_001 X1 X0) \Rightarrow (\forall X2. \\ & (m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow ((X2 \in k4_finseq_1 (k9_glib_003 \\ & X0 X1)) \Rightarrow (r1_xxreal_0 k6_numbers (k1_seq_1 (k9_glib_003 X0 X1) \\ & X2)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge ((v1_glib_003 X0) \wedge \\ (v7_glib_003 X0)))))) \Rightarrow (\forall X1.(m3_glib_001 X1 X0) \Rightarrow (\forall X2. \\ (m4_glib_001 X2 X0 X1) \Rightarrow (\exists X3.(m1_subset_1 X3 (k1_zfmisc_1 \\ (k9_glib_003 X0 X1)) \wedge (k9_glib_003 X0 X2 = k1_glib_003 k1_numbers \\ (k9_glib_003 X0 X1) X3)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge \\ ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \wedge (m3_glib_001 \\ X1 X0) \Rightarrow (\forall X2.(m4_glib_001 X2 X0 X1) \Rightarrow (m3_glib_001 X2 X0)) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge \\ ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge ((v1_glib_003 \\ X0) \wedge (v7_glib_003 X0)))))) \wedge (m3_glib_001 X1 X0) \Rightarrow (m2_finseq_1 \\ (k9_glib_003 X0 X1) k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge ((v1_glib_003 X0) \wedge \\ (v7_glib_003 X0)))))) \Rightarrow (\forall X1.(m3_glib_001 X1 X0) \Rightarrow (k10_glib_003 \\ X0 X1 = k18_rvsum_1 (k9_glib_003 X0 X1))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge ((v1_glib_003 X0) \wedge \\ (v8_glib_003 X0)))))) \Rightarrow ((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge \\ ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge ((v1_glib_003 \\ X0) \wedge (v7_glib_003 X0)))))) \end{aligned} \quad (7)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge ((v1_glib_003 X0) \wedge \\ (v8_glib_003 X0)))))) \Rightarrow (\forall X1.(m3_glib_001 X1 X0) \Rightarrow (\forall X2. \\ (m4_glib_001 X2 X0 X1) \Rightarrow (r1_xxreal_0 (k10_glib_003 X0 X2) (k10_glib_003 \\ X0 X1)))) \end{aligned}$$