

t12_glib_003

(TMP6CJaToLK45S4xmUZMG59VV7dLSf9zm6W)

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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 $v3_glib_001 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_glib_003 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Let $k15_glib_001 : \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (2)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k3_finseq_1 X0 = k1_card_1 X0) \quad (3)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow ((\neg v1_xboole_0 (k1_card_1 X0)) \wedge (v1_card_1 (k1_card_1 X0))) \quad (4)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge \\ & ((v1_funct_1 X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v1_glib_003 \\ & X0)))))) \wedge (m3_glib_001 X1 X0)) \Rightarrow ((v1_relat_1 (k8_glib_003 X0 X1)) \wedge \\ & ((v1_funct_1 (k8_glib_003 X0 X1)) \wedge (v1_finseq_1 (k8_glib_003 \\ & X0 X1)))) \quad (6) \end{aligned}$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(m3_glib_001 \\ X1 X0) \Rightarrow ((v3_glib_001 X1 X0) \Leftrightarrow (k15_glib_001 X0 X1 = k6_numbers))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v1_glib_003 X0)))))) \Rightarrow \\ (\forall X1.(m3_glib_001 X1 X0) \Rightarrow (\forall X2.((v1_relat_1 X2) \wedge \\ ((v1_funct_1 X2) \wedge (v1_finseq_1 X2))) \Rightarrow ((X2 = k8_glib_003 X0 X1) \Leftrightarrow \\ ((k3_finseq_1 X2 = k3_finseq_1 (k12_glib_001 X0 X1)) \wedge (\forall X3. \\ (v7_ordinal1 X3) \Rightarrow ((r1_xxreal_0 np_1 X3) \wedge (r1_xxreal_0 X3 (k3_finseq_1 \\ X2))) \Rightarrow (k1_funct_1 X2 X3 = k1_funct_1 (k5_glib_003 X0) (k1_funct_1 \\ (k12_glib_001 X0 X1) X3)))))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge (v1_glib_000 X0)))))) \Rightarrow (\forall X1.(m3_glib_001 \\ X1 X0) \Rightarrow (k15_glib_001 X0 X1 = k3_finseq_1 (k12_glib_001 X0 X1))) \end{aligned} \quad (9)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge ((v4_relat_1 X0 k5_numbers) \wedge ((v1_funct_1 \\ X0) \wedge ((v1_finset_1 X0) \wedge ((v1_glib_000 X0) \wedge (v1_glib_003 X0)))))) \Rightarrow \\ (\forall X1.(m3_glib_001 X1 X0) \Rightarrow ((v3_glib_001 X1 X0) \Rightarrow (k8_glib_003 \\ X0 X1 = k1_xboole_0))) \end{aligned}$$