

t16_binari_4

(TMZroXyN8hbeAix2eW6KTyNipVXHpq8SXRR)

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Let $v3_card_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_margrel1 : \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_margrel1 : \iota$ be given. Let $k3_binari_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_binarith : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k1_xboolean : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k21_binop_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_series_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Assume the following.

$$\forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow (k7_partfun1 X0 (k12_finseq_1 X0 X1) np_1 = X1)) \quad (1)$$

Assume the following.

$$\forall X0. ((v3_card_1 X0 np_1) \wedge (m2_finseq_1 X0 k6_margrel1)) \Rightarrow ((X0 = k12_finseq_1 k6_margrel1 k7_margrel1) \Rightarrow (k6_binarith np_1 X0 = k6_numbers)) \quad (2)$$

Assume the following.

$$((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \quad (3)$$

Assume the following.

$$k7_margrel1 = k1_xboolean \quad (4)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (5)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$\neg v1_xboole_0 \ k6_margrel1 \quad (7)$$

Assume the following.

$$m1_subset_1 \ k7_margrel1 \ k6_margrel1 \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7_ordinal1 \ X0) \Rightarrow (\forall X1.((v3_card_1 \ X1 \ X0) \wedge \\ m2_finseq_1 \ X1 \ k6_margrel1) \Rightarrow (((k7_partfun1 \ k6_margrel1 \ X1 \ X0 = \\ k7_margrel1) \Rightarrow (k3_binari_2 \ X0 \ X1 = k6_binarith \ X0 \ X1)) \wedge ((k7_partfun1 \\ k6_margrel1 \ X1 \ X0 \neq k7_margrel1) \Rightarrow (k3_binari_2 \ X0 \ X1 = k21_binop_2 \\ (k6_binarith \ X0 \ X1) \ (k5_series_1 \ np_2 \ X0)))))) \quad (9) \end{aligned}$$

Assume the following.

$$k1_xboolean = k6_numbers \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k4_ordinal1) \Rightarrow (v7_ordinal1 \ X0) \quad (11)$$

Theorem 1

$$\begin{aligned} \forall X0.((v3_card_1 \ X0 \ np_1) \wedge (m2_finseq_1 \ X0 \ k6_margrel1)) \Rightarrow \\ ((X0 = k12_finseq_1 \ k6_margrel1 \ k7_margrel1) \Rightarrow (k3_binari_2 \ np_1 \\ X0 = k6_numbers)) \end{aligned}$$