

t1_revrot_1
(TMZzP8jGe4uAKXvRp7Sp4wSXrF6ZcMGgVvu)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_finseq_4 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k4_finseq_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k3_finseq_5 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k4_finseq_5 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $v1_card_1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_finseq_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0)))) \Rightarrow ((np_1 \in k4_finseq_1 X0) \wedge (k3_finseq_1 X0 \in k4_finseq_1 X0)) \quad (1)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(r2_finseq_4 X0 X1) \Rightarrow (X1 \in k10_xtuple_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow ((k4_finseq_1 X0 = k4_finseq_1 (k3_finseq_5 X0)) \wedge (k10_xtuple_0 X0 = k10_xtuple_0 (k3_finseq_5 X0))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1.((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow ((r2_finseq_4 X1 X0) \Rightarrow (r2_finseq_4 (k3_finseq_5 X1) X0)) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & (\forall X1.(X1 \in k10_xtuple_0 X0) \Rightarrow ((r1_xxreal_0 np_1 (k4_finseq_4 \\ & X0 X1)) \wedge (r1_xxreal_0 (k4_finseq_4 X0 X1) (k3_finseq_1 X0)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & (\forall X1.(X1 \in k10_xtuple_0 X0) \Rightarrow (k4_finseq_4 X0 X1 \in k4_finseq_1 \\ & X0)) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (((r1_xxreal_0 \\ & X0 X1) \wedge (v2_xxreal_0 X0)) \Rightarrow (v2_xxreal_0 X1))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & (\forall X1.(X1 \in k10_xtuple_0 X0) \Rightarrow (k1_funct_1 X0 (k4_finseq_4 \\ & X0 X1) = X1)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (10)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (11)$$

Assume the following.

$$\forall X0. \forall X1. (m1_finseq_1 X1 X0) \Rightarrow (k4_finseq_5 X0 X1 = k3_finseq_5 X1) \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & (k4_finseq_1 X0 = k9_xtuple_0 X0) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & (k3_finseq_1 X0 = k1_card_1 X0) \end{aligned} \quad (14)$$

Assume the following.

$$v6_membered\ k4_ordinal1 \quad (15)$$

Assume the following.

$$\forall X0.(v1_finset_1\ X0) \Rightarrow ((v1_finset_1\ (k1_card_1\ X0)) \wedge (v1_card_1\ (k1_card_1\ X0))) \quad (16)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0) \Rightarrow ((v1_xboole_0\ (k1_card_1\ X0)) \wedge (v1_card_1\ (k1_card_1\ X0))) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1\ X1\ X0) \Rightarrow ((v1_funct_1\ X1) \wedge (v1_finseq_1\ X1) \wedge (m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers\ X0)))) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1\ X1\ X0) \Rightarrow ((v1_relat_1\ X1) \wedge (v1_funct_1\ X1) \wedge (v1_finseq_1\ X1)) \quad (19)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1\ X1\ X0) \Rightarrow (m2_finseq_1\ (k4_finseq_5\ X0\ X1)\ X0) \quad (20)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1\ X0) \wedge ((v1_funct_1\ X0) \wedge (v1_finseq_1\ X0))) \Rightarrow (m1_subset_1\ (k4_finseq_4\ X0\ X1)\ k5_numbers) \quad (21)$$

Assume the following.

$$\forall X0.((v1_relat_1\ X0) \wedge ((v1_funct_1\ X0) \wedge (v1_finseq_1\ X0))) \Rightarrow ((v1_relat_1\ (k3_finseq_5\ X0)) \wedge ((v1_funct_1\ (k3_finseq_5\ X0)) \wedge (v1_finseq_1\ (k3_finseq_5\ X0)))) \quad (22)$$

Assume the following.

$$\forall X0.v1_card_1\ (k1_card_1\ X0) \quad (23)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1\ X1) \wedge ((v5_relat_1\ X1\ X0) \wedge (v1_funct_1\ X1))) \Rightarrow (\forall X2.(X2 \in k9_xtuple_0\ X1) \Rightarrow (k7_partfun1\ X0\ X1\ X2 = k1_funct_1\ X1\ X2)) \quad (24)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1 X0) \wedge (v1_funct_1 X0)) \Rightarrow (\forall X1.(r2_finseq_4 \\ X0 X1) \Rightarrow (\forall X2.(X2 = k1_finseq_4 X0 X1) \Leftrightarrow ((X2 \in k9_xtuple_0 X0) \wedge \\ (k1_funct_1 X0 X2 = X1)))) \end{aligned} \quad (25)$$

Assume the following.

$$\forall X0.((v3_ordinal1 X0) \wedge (v1_finset_1 X0)) \Rightarrow (v7_ordinal1 X0) \quad (26)$$

Assume the following.

$$\forall X0.((v1_xxreal_0 X0) \wedge (v2_xxreal_0 X0)) \Rightarrow ((\neg v1_xboole_0 \\ X0) \wedge ((v1_xxreal_0 X0) \wedge (\neg v3_xxreal_0 X0))) \quad (27)$$

Assume the following.

$$\forall X0. \forall X1.(m1_finseq_1 X1 X0) \Rightarrow (v5_relat_1 X1 X0) \quad (28)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xxreal_0 X0) \quad (29)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xreal_0 X0) \quad (30)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finset_1 X0))) \quad (31)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (32)$$

Assume the following.

$$\forall X0.(v1_card_1 X0) \Rightarrow (v3_ordinal1 X0) \quad (33)$$

Assume the following.

$$\forall X0.(v6_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow \\ (v7_ordinal1 X1)) \quad (34)$$

Theorem 1

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m2_finseq_1 X1 X0) \Rightarrow \\ ((r2_finseq_4 X1 (k7_partfun1 X0 X1 (k3_finseq_1 X1))) \Rightarrow (k4_finseq_4 \\ X1 (k7_partfun1 X0 X1 (k3_finseq_1 X1)) = k3_finseq_1 X1))) \end{aligned}$$