

t18_revrot_1

(TMWt9p8f9bzi5SEAVPYPm5yMhLEM483GZgH)

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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 $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_finseq_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k4_finseq_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_finseq_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_nat_d : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ 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 $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k1_card_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow \\ & (\forall X1.(X1 \in k10_xtuple_0 X0) \Rightarrow ((r1_xxreal_0 np_1 (k4_finseq_4 \\ & X0 X1)) \wedge (r1_xxreal_0 (k4_finseq_4 X0 X1) (k3_finseq_1 X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((\\ & (r1_xxreal_0 X0 X1) \wedge (r1_xxreal_0 X1 X0)) \Rightarrow (X0 = X1))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (\neg v1_xboole_0 X1) \Rightarrow (\forall X2.(m1_subset_1 X2 X1) \Rightarrow (\forall X3. \\ & (m2_finseq_1 X3 X1) \Rightarrow (((X2 \in k10_xtuple_0 X3) \wedge (r1_xxreal_0 X0 (\\ & k4_finseq_4 X3 X2))) \Rightarrow ((r1_xxreal_0 X0 np_1) \vee (k7_partfun1 X1 \\ & X3 X0 = k7_partfun1 X1 (k1_finseq_6 X1 X3 X2) (k7_nat_d (k2_nat_1 \\ & X0 (k3_finseq_1 X3)) (k4_finseq_4 X3 X2)))))))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (\neg v1_xboole_0 X1) \Rightarrow (\forall X2.(m1_subset_1 X2 X1) \Rightarrow (\forall X3. \\ (m2_finseq_1 X3 X1) \Rightarrow ((X2 \in k10_xtuple_0 X3) \wedge ((r1_xxreal_0 (k4_finseq_4 \\ X3 X2) X0) \wedge (r1_xxreal_0 X0 (k3_finseq_1 X3)))) \Rightarrow (k7_partfun1 X1 \\ X3 X0 = k7_partfun1 X1 (k1_finseq_6 X1 X3 X2) (k7_nat_d (k2_nat_1 \\ X0 np_1) (k4_finseq_4 X3 X2)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge \\ & ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (r1_xxreal_0 X0 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\ X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (8)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (9)$$

Assume the following.

$$\forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_finseq_1 X0))) \Rightarrow (k3_finseq_1 X0 = k1_card_1 X0) \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. ((m1_subset_1 X0 k5_numbers) \wedge (v7_ordinal1 X1)) \Rightarrow (k2_nat_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (11)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (12)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (13)$$

Assume the following.

$$v3_membered\ k1_numbers \quad (14)$$

Assume the following.

$$\neg v1_xboole_0\ k1_numbers \quad (15)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1_xboole_0\ X0)\wedge((\neg v1_xboole_0\ X1)\wedge \\ (m1_subset_1\ X1\ (k1_zfmisc_1\ X0))))\Rightarrow(\forall X2.(m2_subset_1 \\ X2\ X0\ X1)\Rightarrow(m1_subset_1\ X2\ X0)) \end{aligned} \quad (16)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m2_finseq_1\ X1\ X0)\Rightarrow((v1_funct_1\ X1)\wedge(\\ (v1_finseq_1\ X1)\wedge(m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers \\ X0)))))) \end{aligned} \quad (17)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1_finseq_1\ X1\ X0)\Rightarrow((v1_relat_1\ X1)\wedge(\\ (v1_funct_1\ X1)\wedge(v1_finseq_1\ X1))) \end{aligned} \quad (18)$$

Assume the following.

$$m1_subset_1\ k5_numbers\ (k1_zfmisc_1\ k1_numbers) \quad (19)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_relat_1\ X0)\wedge((v1_funct_1\ X0)\wedge(v1_finseq_1\ X0)))\Rightarrow \\ (m2_subset_1\ (k3_finseq_1\ X0)\ k1_numbers\ k5_numbers) \end{aligned} \quad (20)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0\ X0)\Rightarrow(\forall X1.(m2_finseq_1\ X1\ X0)\Rightarrow \\ ((v1_finseq_6\ X1\ X0)\Leftrightarrow(k7_partfun1\ X0\ X1\ np_1 = k7_partfun1\ X0\ X1 \\ (k3_finseq_1\ X1)))) \end{aligned} \quad (21)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((m1_subset_1\ X0\ k5_numbers)\wedge(v7_ordinal1 \\ X1))\Rightarrow(k2_nat_1\ X0\ X1 = k2_nat_1\ X1\ X0) \end{aligned} \quad (22)$$

Assume the following.

$$\forall X0.(v1_xreal_0\ X0)\Rightarrow(v1_xxreal_0\ X0) \quad (23)$$

Assume the following.

$$\forall X0.(v3_membered\ X0)\Rightarrow(v2_membered\ X0) \quad (24)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (25)$$

Assume the following.

$$\forall X0.(v6_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v7_ordinal1 X1)) \quad (26)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v1_xreal_0 X1)) \quad (27)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & (\neg v1_xboole_0 X1) \Rightarrow (\forall X2.(m1_subset_1 X2 X1) \Rightarrow (\forall X3. \\ & ((v1_finseq_6 X3 X1) \wedge (m2_finseq_1 X3 X1)) \Rightarrow (((X2 \in k10_xtuple_0 \\ & X3) \wedge ((r1_xreal_0 np_1 X0) \wedge (r1_xreal_0 X0 (k4_finseq_4 X3 X2)))) \Rightarrow \\ & (k7_partfun1 X1 X3 X0 = k7_partfun1 X1 (k1_finseq_6 X1 X3 X2) (k7_nat_d \\ & (k2_nat_1 X0 (k3_finseq_1 X3)) (k4_finseq_4 X3 X2)))))) \end{aligned}$$