

t15_gobrd14

(TMJ2GstFtomn2DX3qBqSJjLV7kjccgowjKR)

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Let $v3_funct_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_finseq_6 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k15_euclid : \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $v1_topreal1 : \iota \Rightarrow o$ be given. Let $v2_topreal1 : \iota \Rightarrow o$ be given. Let $v1_goboard5 : \iota \Rightarrow o$ be given. Let $v2_goboard5 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_topreal1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_goboard9 : \iota \Rightarrow \iota$ be given. Let $k2_goboard9 : \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k3_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_subset_1 : \iota \Rightarrow \iota$ 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 $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. k2_xboole_0 (k2_xboole_0 X0 X1) X2 = k2_xboole_0 X0 (k2_xboole_0 X1 X2) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (k4_subset_1 X0 X1 (k3_subset_1 X0 X1) = k2_subset_1 X0) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v1_xboole_0 X0) \wedge (\neg v3_funct_1 X0) \wedge ((v1_finseq_6 X0 (u1_struct_0 (k15_euclid np_2))) \wedge ((v1_topreal1 X0) \wedge ((v2_topreal1 X0) \wedge ((v1_goboard5 X0) \wedge ((v2_goboard5 X0) \wedge (m2_finseq_1 X0 (u1_struct_0 (k15_euclid np_2)))))))))) \Rightarrow (k3_subset_1 (u1_struct_0 (k15_euclid np_2)) (k3_topreal1 np_2 X0) = k4_subset_1 (u1_struct_0 (k15_euclid np_2)) (k2_goboard9 X0) (k3_goboard9 X0)) \quad (3)$$

Assume the following.

$$((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Leftrightarrow(m1_finseq_1 X1 X0) \quad (5)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 X0))\wedge(m1_subset_1 X2 (k1_zfmisc_1 X0)))\Rightarrow(k4_subset_1 X0 X1 X2 = k2_xboole_0 X1 X2) \quad (7)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 X0))\wedge(m1_subset_1 X2 (k1_zfmisc_1 X0)))\Rightarrow(m1_subset_1 (k4_subset_1 X0 X1 X2) (k1_zfmisc_1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0)\wedge(m1_finseq_1 X1 (u1_struct_0 (k15_euclid X0))))\Rightarrow(m1_subset_1 (k3_topreal1 X0 X1) (k1_zfmisc_1 (u1_struct_0 (k15_euclid X0)))) \quad (10)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0)\wedge((\neg v3_funct_1 X0)\wedge((v1_finseq_6 X0 (u1_struct_0 (k15_euclid np_2))))\wedge((v1_topreal1 X0)\wedge((v2_topreal1 X0)\wedge((v1_goboard5 X0)\wedge((v2_goboard5 X0)\wedge(m1_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))))))))))\Rightarrow(m1_subset_1 (k3_goboard9 X0) (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \quad (11)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0)\wedge((\neg v3_funct_1 X0)\wedge((v1_finseq_6 X0 (u1_struct_0 (k15_euclid np_2))))\wedge((v1_topreal1 X0)\wedge((v2_topreal1 X0)\wedge((v1_goboard5 X0)\wedge((v2_goboard5 X0)\wedge(m1_finseq_1 X0 (u1_struct_0 (k15_euclid np_2))))))))))\Rightarrow(m1_subset_1 (k2_goboard9 X0) (k1_zfmisc_1 (u1_struct_0 (k15_euclid np_2)))) \quad (12)$$

Assume the following.

$$\forall X0.k2_subset_1 X0 = X0 \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (14)$$

Assume the following.

$$\forall X0.(v6_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow (v7_ordinal1 X1)) \quad (15)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v3_funct_1 X0)\wedge((\neg v1_xboole_0 X0)\wedge((v1_finseq_6 \\ & X0 (u1_struct_0 (k15_euclid np_2)))\wedge((v1_topreal1 X0)\wedge((v2_topreal1 \\ & X0)\wedge((v1_goboard5 X0)\wedge((v2_goboard5 X0)\wedge(m2_finseq_1 X0 (u1_struct_0 \\ & (k15_euclid np_2))))))))))\Rightarrow(k4_subset_1 (u1_struct_0 (k15_euclid \\ & np_2)) (k4_subset_1 (u1_struct_0 (k15_euclid np_2)) (k3_topreal1 \\ & np_2 X0) (k3_goboard9 X0)) (k2_goboard9 X0) = u1_struct_0 (k15_euclid \\ & np_2)) \end{aligned}$$