

t8_extreal1
(TMZzvpiB8gcQwbnbAxtjYArnjaWWxGufatw)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_numbers : \iota$ be given. Let $k4_extreal1 : \iota \Rightarrow \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k1_xxreal_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ 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 $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k3_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_supinf_2 : \iota$ be given. Let $v2_valued_0 : \iota \Rightarrow o$ be given. Let $k12_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_valued_0 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow ((v1_xboole_0 X0) \vee ((v2_xxreal_0 X1) \vee (v3_xxreal_0 X0)))))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (k1_xxreal_3 X0 k6_numbers = X0) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge(v1_finseq_1 X1)))\Rightarrow((X1 = k9_finseq_1 X0)\Leftrightarrow((k3_finseq_1 X1 = np_1)\wedge(k1_funct_1 X1 np_1 = X0))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1)\Rightarrow((v1_xboole_0 X1)\vee (X0 \in X1)) \quad (5)$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \quad (6)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0)\Rightarrow(k2_xcmplx_0 X0 k6_numbers = X0) \quad (7)$$

Assume the following.

$$((v2_xxreal_0 np_1)\wedge(m2_subset_1 np_1 k1_numbers k5_numbers))\wedge ((m1_subset_1 np_1 k5_numbers)\wedge(m1_subset_1 np_1 k1_numbers)) \quad (8)$$

Assume the following.

$$\neg v1_xboole_0 np_1 \quad (9)$$

Assume the following.

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

Assume the following.

$$\forall X0.k9_finseq_1 X0 = k5_finseq_1 X0 \quad (11)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (12)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k7_numbers)\wedge(m1_subset_1 X1 k7_numbers))\Rightarrow(k3_supinf_2 X0 X1 = k1_xxreal_3 X0 X1) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_numbers)\wedge(v7_ordinal1 X1))\Rightarrow(k2_nat_1 X0 X1 = k2_xcmplx_0 X0 X1) \quad (15)$$

Assume the following.

$$k1_supinf_2 = k1_xboole_0 \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v2_valued_0 X0)))\Rightarrow(k12_supinf_2 X0 X1 = k1_funct_1 X0 X1) \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow(k12_finseq_1 X0 X1 = k5_finseq_1 X1) \quad (18)$$

Assume the following.

$$\forall X0.v1_finseq_1 (k5_finseq_1 X0) \quad (19)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (20)$$

Assume the following.

$$\forall X0.(v1_relat_1 (k5_finseq_1 X0)\wedge(v1_funct_1 (k5_finseq_1 X0))) \quad (21)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v1_valued_0 X0)))\Rightarrow(v1_xcmplx_0 (k1_funct_1 X0 X1)) \quad (22)$$

Assume the following.

$$\neg v1_xboole_0 k7_numbers \quad (23)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (24)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (25)$$

Assume the following.

$$m2_subset_1 k6_numbers k1_numbers k5_numbers \quad (26)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (27)$$

Assume the following.

$$\forall X0.(m1_finseq_1 X0 k7_numbers)\Rightarrow(m1_subset_1 (k4_extreal1 X0) k7_numbers) \quad (28)$$

Assume the following.

$$m1_subset_1 \ k1_supinf_2 \ k7_numbers \quad (29)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 \ X0) \wedge (m1_subset_1 \ X1 \ X0)) \Rightarrow (m2_finseq_1 \ (k12_finseq_1 \ X0 \ X1) \ X0) \quad (30)$$

Assume the following.

$$\begin{aligned} \forall X0.(m2_finseq_1 \ X0 \ k7_numbers) \Rightarrow (\forall X1.(m1_subset_1 \ X1 \ k7_numbers) \Rightarrow ((X1 = k4_extreal1 \ X0) \Leftrightarrow (\exists X2.((v1_funct_1 \ X2) \wedge ((v1_funct_2 \ X2 \ k5_numbers \ k7_numbers) \wedge (m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ k5_numbers \ k7_numbers)))))) \wedge ((X1 = k12_supinf_2 \ X2 \ (k3_finseq_1 \ X0)) \wedge ((k12_supinf_2 \ X2 \ k6_numbers = k1_supinf_2) \wedge (\forall X3.(m2_subset_1 \ X3 \ k1_numbers \ k5_numbers) \Rightarrow ((\neg r1_xxreal_0 \ (k3_finseq_1 \ X0) \ X3) \Rightarrow (k12_supinf_2 \ X2 \ (k2_nat_1 \ X3 \ np_1) = k3_supinf_2 \ (k12_supinf_2 \ X2 \ X3) \ (k12_supinf_2 \ X0 \ (k2_nat_1 \ X3 \ np_1)))))))))) \quad (31) \end{aligned}$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 \ X0 \ k7_numbers) \wedge (m1_subset_1 \ X1 \ k7_numbers)) \Rightarrow (k3_supinf_2 \ X0 \ X1 = k3_supinf_2 \ X1 \ X0) \quad (32)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 \ X0) \wedge (v1_xcmplx_0 \ X1)) \Rightarrow (k2_xcmplx_0 \ X0 \ X1 = k2_xcmplx_0 \ X1 \ X0) \quad (33)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k4_ordinal1) \Rightarrow (v7_ordinal1 \ X0) \quad (34)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ (k1_zfmisc_1 \ k1_numbers)) \Rightarrow (v3_membered \ X0) \quad (35)$$

Assume the following.

$$\forall X0.((v1_relat_1 \ X0) \wedge (v3_valued_0 \ X0)) \Rightarrow ((v1_relat_1 \ X0) \wedge (v1_valued_0 \ X0)) \quad (36)$$

Assume the following.

$$\forall X0.((v1_xxreal_0 \ X0) \wedge (v2_xxreal_0 \ X0)) \Rightarrow ((\neg v1_xboole_0 \ X0) \wedge ((v1_xxreal_0 \ X0) \wedge (\neg v3_xxreal_0 \ X0))) \quad (37)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_1 \ X1 \ X0) \Rightarrow (v5_relat_1 \ X1 \ X0) \quad (38)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v5_relat_1 X0 k1_numbers)) \Rightarrow ((v1_relat_1 X0) \wedge (v3_valued_0 X0)) \quad (39)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\neg v3_xxreal_0 X0) \quad (40)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v5_relat_1 X0 k7_numbers)) \Rightarrow ((v1_relat_1 X0) \wedge (v2_valued_0 X0)) \quad (41)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k7_numbers) \Rightarrow (v1_xxreal_0 X0) \quad (42)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers) \Rightarrow (v1_xreal_0 X0) \quad (43)$$

Assume the following.

$$\forall X0.(v3_membered X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow (v1_xreal_0 X1)) \quad (44)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k7_numbers) \Rightarrow (k4_extreal1 (k12_finseq_1 k7_numbers X0) = X0)$$