

t48_borsuk_4
(TMahxEinr1aTuQGgaLQJpuXfzia4YafwkEZ)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_borsuk_4 : \iota$ be given. Let $k5_topmetr : \iota$ be given. Let $k3_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $v4_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k17_borsuk_1 : \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v2_connsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_compts_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $v6_membered : \iota \Rightarrow o$ be given. Let $v3_topmetr : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 (k1_zfmisc_1 (u1_struct_0 k1_borsuk_4))) \Rightarrow \\ & (\forall X1.(m1_subset_1 X1 (u1_struct_0 k5_topmetr)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (u1_struct_0 k5_topmetr)) \Rightarrow ((X0 = k2_rcomp_1 X1 \\ & X2) \Rightarrow (v3_pre_topc X0 k1_borsuk_4)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (((r1_xxreal_0 k6_numbers X0) \wedge (r1_xxreal_0 X0 np_1)) \Leftrightarrow (X0 \in u1_struct_0 k17_borsuk_1)) \quad (2)$$

Assume the following.

$$\forall X0.k4_xboole_0 X0 k1_xboole_0 = X0 \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1)\Rightarrow((v1_xboole_0 X1)\vee (X0 \in X1)) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0)\Rightarrow(\forall X1.(v1_xxreal_0 X1)\Rightarrow(((r1_xxreal_0 X0 X1)\wedge(r1_xxreal_0 X1 X0))\Rightarrow(X0 = X1))) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1)\Rightarrow(m1_subset_1 X0 X1) \quad (6)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(\forall X1.(v1_xreal_0 X1)\Rightarrow(((r1_xxreal_0 X0 X1)\wedge(v2_xxreal_0 X0))\Rightarrow(v2_xxreal_0 X1))) \quad (7)$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \quad (8)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0)\Rightarrow(\forall X1.(v1_xxreal_0 X1)\Rightarrow(\forall X2.(v1_xxreal_0 X2)\Rightarrow((\neg r1_xxreal_0 X1 X0)\Rightarrow(k6_subset_1 (k4_xxreal_1 X2 X1) (k2_xxreal_1 X0 X1) = k4_xxreal_1 X2 X0)))) \quad (9)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0)\Rightarrow(k2_xxreal_1 X0 X0 = k1_xboole_0) \quad (10)$$

Assume the following.

$$((v2_xxreal_0 np_1)\wedge(m2_subset_1 np_1 k1_numbers k5_numbers))\wedge ((m1_subset_1 np_1 k5_numbers)\wedge(m1_subset_1 np_1 k1_numbers)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow(r1_xxreal_0 X0 X0) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(k7_subset_1 X0 X1 X2 = k4_xboole_0 X1 X2) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.k6_subset_1 X0 X1 = k4_xboole_0 X0 X1 \quad (14)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (15)$$

Assume the following.

$$k5_topmetr = k17_borsuk_1 \quad (16)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow(k3_rcomp_1 X0 X1 = k2_xxreal_1 X0 X1) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow(k2_rcomp_1 X0 X1 = k4_xxreal_1 X0 X1) \quad (19)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v2_pre_topc X0)\wedge(l1_pre_topc X0)))\Rightarrow(\exists X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\wedge((\neg v1_xboole_0 X1)\wedge((v2_connsp_1 X1 X0)\wedge(v2_compts_1 X1 X0)))) \quad (20)$$

Assume the following.

$$(\neg v2_struct_0 k17_borsuk_1)\wedge((v1_pre_topc k17_borsuk_1)\wedge(v2_pre_topc k17_borsuk_1)) \quad (21)$$

Assume the following.

$$v6_membered k4_ordinal1 \quad (22)$$

Assume the following.

$$\forall X0.((v3_topmetr X0)\wedge(l1_struct_0 X0))\Rightarrow(v3_membered (u1_struct_0 X0)) \quad (23)$$

Assume the following.

$$v3_topmetr k17_borsuk_1 \quad (24)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (25)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow(\forall X1.(m1_pre_topc X1 X0)\Rightarrow(l1_pre_topc X1)) \quad (26)$$

Assume the following.

$$\forall X0.(l1_pre_topc\ X0)\Rightarrow(l1_struct_0\ X0) \quad (27)$$

Assume the following.

$$\forall X0.\forall X1.m1_subset_1\ (k6_subset_1\ X0\ X1)\ (k1_zfmisc_1\ X0) \quad (28)$$

Assume the following.

$$m1_subset_1\ k5_numbers\ (k1_zfmisc_1\ k1_numbers) \quad (29)$$

Assume the following.

$$(v1_pre_topc\ k1_borsuk_4)\wedge(m1_pre_topc\ k1_borsuk_4\ k5_topmetr) \quad (30)$$

Assume the following.

$$l1_pre_topc\ k17_borsuk_1 \quad (31)$$

Assume the following.

$$\forall X0.(l1_struct_0\ X0)\Rightarrow(k2_struct_0\ X0 = u1_struct_0\ X0) \quad (32)$$

Assume the following.

$$\begin{aligned} \forall X0.(l1_pre_topc\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1 \\ (u1_struct_0\ X0)))\Rightarrow((v4_pre_topc\ X1\ X0)\Leftrightarrow(v3_pre_topc\ (k7_subset_1 \\ (u1_struct_0\ X0)\ (k2_struct_0\ X0)\ X1)\ X0))) \end{aligned} \quad (33)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_pre_topc\ X0)\wedge(m1_pre_topc\ X0\ k5_topmetr))\Rightarrow(\\ (X0 = k1_borsuk_4)\Leftrightarrow(u1_struct_0\ X0 = k2_rcomp_1\ k6_numbers\ np_1)) \end{aligned} \quad (34)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_xxreal_0\ X0)\wedge(v1_xxreal_0\ X1))\Rightarrow(\\ (r1_xxreal_0\ X0\ X1)\vee(r1_xxreal_0\ X1\ X0)) \end{aligned} \quad (35)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ k1_numbers))\Rightarrow(v3_membered\ X0) \quad (36)$$

Assume the following.

$$\forall X0.(v1_xreal_0\ X0)\Rightarrow(v1_xxreal_0\ X0) \quad (37)$$

Assume the following.

$$\begin{aligned} \forall X0.((v1_xxreal_0\ X0)\wedge(v2_xxreal_0\ X0))\Rightarrow((\neg v1_xboole_0 \\ X0)\wedge((v1_xxreal_0\ X0)\wedge(\neg v3_xxreal_0\ X0))) \end{aligned} \quad (38)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(v1_xreal_0\ X0) \quad (39)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ k1_numbers)\Rightarrow(v1_xreal_0\ X0) \quad (40)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0))\Rightarrow(v1_xboole_0\ X1)) \quad (41)$$

Assume the following.

$$\forall X0.(v6_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow(v7_ordinal1\ X1)) \quad (42)$$

Assume the following.

$$\forall X0.(v3_membered\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ X0)\Rightarrow(v1_xreal_0\ X1)) \quad (43)$$

Theorem 1

$$\begin{aligned} &\forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ (u1_struct_0\ k1_borsuk_4)))\Rightarrow \\ &(\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ k5_topmetr))\Rightarrow((X0 = \\ &k3_rcomp_1\ X1\ np_1)\Rightarrow(v4_pre_topc\ X0\ k1_borsuk_4))) \end{aligned}$$