

t18_borsuk_4 (TMNqTGPYSCiNfZbJRaxs- GWN1DxyzBjX9MnR)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_topmetr : \iota$ be given. Let $k1_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k17_borsuk_1 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ 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 $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k1_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v3_membered : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v6_xxreal_2 : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Assume the following.

$$u1_struct_0 \ k17_borsuk_1 = k1_rcomp_1 \ k6_numbers \ np_1 \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 \ X0 \ (k1_zfmisc_1 \ X1)) \Leftrightarrow (r1_tarski \ X0 \ X1) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 \ X0 \ X1) \Rightarrow ((v1_xboole_0 \ X1) \vee (X0 \in X1)) \quad (3)$$

Assume the following.

$$m1_subset_1 \ k1_xboole_0 \ k4_ordinal1 \quad (4)$$

Assume the following.

$$((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \quad (5)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (6)$$

Assume the following.

$$k5_topmetr = k17_borsuk_1 \quad (7)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xreal_0 X1))\Rightarrow(k1_rcomp_1 X0 X1 = k1_xxreal_1 X0 X1) \quad (9)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v2_pre_topc X0)\wedge(l1_pre_topc X0)))\Rightarrow(\exists X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))\wedge((\neg v1_xboole_0 X1)\wedge((v2_connsp_1 X1 X0)\wedge(v2_compts_1 X1 X0)))) \quad (10)$$

Assume the following.

$$(\neg v2_struct_0 k17_borsuk_1)\wedge((v1_pre_topc k17_borsuk_1)\wedge(v2_pre_topc k17_borsuk_1)) \quad (11)$$

Assume the following.

$$v3_membered k1_numbers \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow(v6_xxreal_2 (k1_xxreal_1 X0 X1)) \quad (13)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xreal_0 X1))\Rightarrow(m1_subset_1 (k1_rcomp_1 X0 X1) (k1_zfmisc_1 k1_numbers)) \quad (15)$$

Assume the following.

$$l1_pre_topc k17_borsuk_1 \quad (16)$$

Assume the following.

$$\forall X0.(v2_membered\ X0) \Rightarrow ((v6_xxreal_2\ X0) \Leftrightarrow (\forall X1.(v1_xxreal_0\ X1) \Rightarrow (\forall X2.(v1_xxreal_0\ X2) \Rightarrow (((X1 \in X0) \wedge (X2 \in X0)) \Rightarrow (r1_tarski\ (k1_xxreal_1\ X1\ X2)\ X0)))))) \quad (17)$$

Assume the following.

$$\forall X0.(m1_subset_1\ X0\ (k1_zfmisc_1\ k1_numbers)) \Rightarrow (v3_membered\ X0) \quad (18)$$

Assume the following.

$$\forall X0.(v1_xreal_0\ X0) \Rightarrow (v1_xxreal_0\ X0) \quad (19)$$

Assume the following.

$$\forall X0.(v3_membered\ X0) \Rightarrow (v2_membered\ X0) \quad (20)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0)) \Rightarrow (v1_xboole_0\ X1)) \quad (21)$$

Assume the following.

$$\forall X0.(v3_membered\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ X0) \Rightarrow (v1_xreal_0\ X1)) \quad (22)$$

Theorem 1

$$\forall X0.(m1_subset_1\ X0\ (u1_struct_0\ k5_topmetr)) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ k5_topmetr)) \Rightarrow (m1_subset_1\ (k1_rcomp_1\ X0\ X1)\ (k1_zfmisc_1\ (u1_struct_0\ k5_topmetr))))$$