

t19_borsuk_4

(TMUvizpbJuyUrPDhwQtUARiteNJzED7r3QD)

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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 $k2_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k17_borsuk_1 : \iota$ be given. Let $k1_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k4_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ 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 $v6_xxreal_2 : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ 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.

$$\forall X0. (v1_xxreal_0 \ X0) \Rightarrow (\forall X1. (v1_xxreal_0 \ X1) \Rightarrow (r1_tarski \ (k4_xxreal_1 \ X0 \ X1) \ (k1_xxreal_1 \ X0 \ X1))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((r1_tarski \ X0 \ X1) \wedge (r1_tarski \ X1 \ X2)) \Rightarrow (r1_tarski \ X0 \ X2) \quad (5)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (7)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (8)$$

Assume the following.

$$k5_topmetr = k17_borsuk_1 \quad (9)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_xxreal_0 \ X0) \wedge (v1_xxreal_0 \ X1)) \Rightarrow (\\ & \quad k2_rcomp_1 \ X0 \ X1 = k4_xxreal_1 \ X0 \ X1) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_xxreal_0 \ X0) \wedge (v1_xxreal_0 \ X1)) \Rightarrow (k1_rcomp_1 \\ & \quad X0 \ X1 = k1_xxreal_1 \ X0 \ X1) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & (\neg v2_struct_0 \ k17_borsuk_1) \wedge ((v1_pre_topc \ k17_borsuk_1) \wedge (\\ & \quad v2_pre_topc \ k17_borsuk_1)) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v3_topmetr \ X0) \wedge (l1_struct_0 \ X0)) \Rightarrow (v3_membered \\ & \quad (u1_struct_0 \ X0)) \end{aligned} \quad (14)$$

Assume the following.

$$v3_topmetr \ k17_borsuk_1 \quad (15)$$

Assume the following.

$$v3_membered \ k1_numbers \quad (16)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 \ X0) \wedge (l1_struct_0 \ X0)) \Rightarrow (\neg v1_xboole_0 \\ & \quad (u1_struct_0 \ X0)) \end{aligned} \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow(v6_xxreal_2 (k1_xxreal_1 X0 X1)) \quad (18)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0)\Rightarrow(l1_struct_0 X0) \quad (19)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (20)$$

Assume the following.

$$l1_pre_topc k17_borsuk_1 \quad (21)$$

Assume the following.

$$\forall X0.(v2_membered X0)\Rightarrow((v6_xxreal_2 X0)\Leftrightarrow(\forall X1.(v1_xxreal_0 X1)\Rightarrow(\forall X2.(v1_xxreal_0 X2)\Rightarrow(((X1 \in X0)\wedge(X2 \in X0))\Rightarrow(r1_tarski (k1_xxreal_1 X1 X2) X0)))))) \quad (22)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 (k1_zfmisc_1 k1_numbers))\Rightarrow(v3_membered X0) \quad (23)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow(v1_xxreal_0 X0) \quad (24)$$

Assume the following.

$$\forall X0.(v3_membered X0)\Rightarrow(v2_membered X0) \quad (25)$$

Assume the following.

$$\forall X0.(v3_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow(v1_xreal_0 X1)) \quad (26)$$

Assume the following.

$$\forall X0.(v2_membered X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow(v1_xxreal_0 X1)) \quad (27)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 (u1_struct_0 k5_topmetr))\Rightarrow(\forall X1.(m1_subset_1 X1 (u1_struct_0 k5_topmetr))\Rightarrow(m1_subset_1 (k2_rcomp_1 X0 X1) (k1_zfmisc_1 (u1_struct_0 k5_topmetr))))$$