

t38_borsuk_5 (TMSAqZ-
SuL8ZDrfvTSzxWbWd5dc9Gc1ksW1F)

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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 $k3_topmetr : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k1_seq_4 : \iota \Rightarrow \iota$ be given. Let $k2_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $v7_pre_topc : \iota \Rightarrow o$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $v8_pre_topc : \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc \\ X0))) \Rightarrow ((v7_pre_topc X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\ X0)) \Rightarrow (k2_pre_topc X0 (k6_domain_1 (u1_struct_0 X0) X1) = k6_domain_1 \\ (u1_struct_0 X0) X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \tag{2}$$

Assume the following.

$$u1_struct_0 k3_topmetr = k1_numbers \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow \\ (k6_domain_1 X0 X1 = k1_tarski X1) \tag{4}$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow (k1_seq_4 X0 = k1_tarski X0) \tag{5}$$

Assume the following.

$$(v2_pre_topc k3_topmetr) \wedge (v8_pre_topc k3_topmetr) \tag{6}$$

Assume the following.

$$(\neg v2_struct_0\ k3_topmetr) \wedge ((v1_pre_topc\ k3_topmetr) \wedge (v2_pre_topc\ k3_topmetr)) \quad (7)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0\ X0) \wedge (l1_struct_0\ X0)) \Rightarrow (\neg v1_xboole_0\ (u1_struct_0\ X0)) \quad (8)$$

Assume the following.

$$\forall X0. (l1_pre_topc\ X0) \Rightarrow (l1_struct_0\ X0) \quad (9)$$

Assume the following.

$$(v2_pre_topc\ k3_topmetr) \wedge (l1_pre_topc\ k3_topmetr) \quad (10)$$

Assume the following.

$$\forall X0. (v1_xreal_0\ X0) \Leftrightarrow (X0 \in k1_numbers) \quad (11)$$

Assume the following.

$$\forall X0. (l1_pre_topc\ X0) \Rightarrow ((v8_pre_topc\ X0) \Rightarrow (v7_pre_topc\ X0)) \quad (12)$$

Theorem 1

$$\begin{aligned} &\forall X0. (m1_subset_1\ X0\ (k1_zfmisc_1\ (u1_struct_0\ k3_topmetr))) \Rightarrow \\ &\quad (\forall X1. (v1_xreal_0\ X1) \Rightarrow ((X0 = k1_seq_4\ X1) \Rightarrow (k2_pre_topc\ k3_topmetr\ X0 = k1_seq_4\ X1))) \end{aligned}$$