

t33_borsuk_4

(TMaSjargacqagpT8BpurDxNhWvhRvEPDC7u)

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Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_borsuk_4 : \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_topmetr : \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k4_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k17_borsuk_1 : \iota$ be given. Let $k1_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_0 : \iota$ be given. Let $k2_rcomp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v1_pre_topc : \iota \Rightarrow o$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (r1_xboole_0 X0 X1) \Rightarrow (k4_xboole_0 (k2_xboole_0 X0 X1) X1 = X0) \quad (1)$$

Assume the following.

$$\forall X0. (v1_xxreal_0 X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow (r1_xboole_0 (k4_xxreal_1 X0 X1) (k2_tarski X0 X1))) \quad (2)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (3)$$

Assume the following.

$$u1_struct_0 k17_borsuk_1 = k1_rcomp_1 k6_numbers np_1 \quad (4)$$

Assume the following.

$$\forall X0. (v1_xxreal_0 X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow (k1_xxreal_1 X0 X1 = k2_xboole_0 (k4_xxreal_1 X0 X1) (k2_tarski X0 X1)))) \quad (5)$$

Assume the following.

$$\begin{aligned} & ((v2_xxreal_0 \ np_1) \wedge (m2_subset_1 \ np_1 \ k1_numbers \ k5_numbers)) \wedge \\ & ((m1_subset_1 \ np_1 \ k5_numbers) \wedge (m1_subset_1 \ np_1 \ k1_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$v1_xboole_0 \ np_0 \quad (7)$$

Assume the following.

$$r1_xxreal_0 \ np_0 \ np_1 \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. k6_subset_1 \ X0 \ X1 = k4_xboole_0 \ X0 \ X1 \quad (9)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (10)$$

Assume the following.

$$k5_topmetr = k17_borsuk_1 \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_xxreal_0 \ X0) \wedge (v1_xxreal_0 \ X1)) \Rightarrow (\\ & k2_rcomp_1 \ X0 \ X1 = k4_xxreal_1 \ X0 \ X1) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_xreal_0 \ X0) \wedge (v1_xreal_0 \ X1)) \Rightarrow (k1_rcomp_1 \\ & X0 \ X1 = k1_xxreal_1 \ X0 \ X1) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} & \exists X0. (v1_xboole_0 \ X0) \wedge ((v1_xcmplx_0 \ X0) \wedge ((v1_xxreal_0 \\ & X0) \wedge (v1_xreal_0 \ X0))) \end{aligned} \quad (14)$$

Assume the following.

$$(v1_pre_topc \ k1_borsuk_4) \wedge (m1_pre_topc \ k1_borsuk_4 \ k5_topmetr) \quad (15)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_pre_topc \ X0) \wedge (m1_pre_topc \ X0 \ k5_topmetr)) \Rightarrow (\\ & (X0 = k1_borsuk_4) \Leftrightarrow (u1_struct_0 \ X0 = k2_rcomp_1 \ k6_numbers \ np_1)) \end{aligned} \quad (16)$$

Assume the following.

$$\forall X0. \forall X1. k2_xboole_0 \ X0 \ X1 = k2_xboole_0 \ X1 \ X0 \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.k2_tarSKI X0 X1 = k2_tarSKI X1 X0 \quad (18)$$

Assume the following.

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

Assume the following.

$$\forall X0.(m1_subset_1 X0 k1_numbers)\Rightarrow(v1_xreal_0 X0) \quad (20)$$

Theorem 1

$$u1_struct_0 k1_borsuk_4 = k6_subset_1 (u1_struct_0 k5_topmetr) \\ (k2_tarSKI k6_numbers np_1)$$