

t47_borsuk_6

(TMLJBqYE1zCfCUAvJ5yQh5XkCvNWjadiEoZ)

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Let $k1_funct.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_borsuk.6 : \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $v1_xboole.0 : \iota \Rightarrow o$ be given. Let $k1_xboole.0 : \iota$ be given. Let $v1_xreal.0 : \iota \Rightarrow o$ be given. Let $r1_xxreal.0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct.0 : \iota \Rightarrow \iota$ be given. Let $k17_borsuk.1 : \iota$ be given. Let $m1_subset.1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_xxreal.0 : \iota \Rightarrow o$ be given. Let $np_2 : \iota$ 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 $np_0 : \iota$ be given. Let $k3_xcmplx.0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_xcmplx.0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_real.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_topmetr : \iota$ be given. Let $v1_funct.1 : \iota \Rightarrow o$ be given. Let $v1_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc.1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_real.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole.0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v1_xboole.0 X0) \Rightarrow (X0 = k1_xboole.0) \quad (2)$$

Assume the following.

$$\forall X0. (v1_xreal.0 X0) \Rightarrow (((r1_xxreal.0 k6_numbers X0) \wedge (r1_xxreal.0 X0 np_1)) \Leftrightarrow (X0 \in u1_struct.0 k17_borsuk.1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset.1 X0 X1) \quad (4)$$

Assume the following.

$$((v2_xxreal.0 np_2) \wedge (m2_subset.1 np_2 k1_numbers k5_numbers)) \wedge ((m1_subset.1 np_2 k5_numbers) \wedge (m1_subset.1 np_2 k1_numbers)) \quad (5)$$

Assume the following.

$$((v2_xxreal.0 np_1) \wedge (m2_subset.1 np_1 k1_numbers k5_numbers)) \wedge ((m1_subset.1 np_1 k5_numbers) \wedge (m1_subset.1 np_1 k1_numbers)) \quad (6)$$

Assume the following.

$$(m2_subset_1\ np_0\ k1_numbers\ k5_numbers) \wedge ((m1_subset_1\ np_0\ k5_numbers) \wedge (m1_subset_1\ np_0\ k1_numbers)) \quad (7)$$

Assume the following.

$$v1_xboole_0\ np_0 \quad (8)$$

Assume the following.

$$k3_xcmplx_0\ np_2\ np_0 = np_0 \quad (9)$$

Assume the following.

$$\neg r1_xxreal_0\ np_1\ (k7_xcmplx_0\ np_1\ np_2) \quad (10)$$

Assume the following.

$$r1_xxreal_0\ np_1\ np_1 \quad (11)$$

Assume the following.

$$r1_xxreal_0\ np_0\ (k7_xcmplx_0\ np_1\ np_2) \quad (12)$$

Assume the following.

$$r1_xxreal_0\ np_0\ np_1 \quad (13)$$

Assume the following.

$$r1_xxreal_0\ np_0\ np_0 \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k1_numbers) \wedge (v1_xreal_0\ X1)) \Rightarrow (k8_real_1\ X0\ X1 = k3_xcmplx_0\ X0\ X1) \quad (15)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (16)$$

Assume the following.

$$k5_topmetr = k17_borsuk_1 \quad (17)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((-v1_xboole_0\ X0) \wedge \\ & (((v1_funct_1\ X2) \wedge ((v1_funct_2\ X2\ X0\ X1) \wedge (m1_subset_1\ X2\ (k1_zfmisc_1 \\ & (k2_zfmisc_1\ X0\ X1)))))) \wedge (m1_subset_1\ X3\ X0))) \Rightarrow (k3_funct_2\ X0 \\ & X1\ X2\ X3 = k1_funct_1\ X2\ X3) \end{aligned} \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1\ X0\ k1_numbers) \wedge (v1_xreal_0\ X1)) \Rightarrow (k10_real_1\ X0\ X1 = k7_xcmplx_0\ X0\ X1) \quad (19)$$

Assume the following.

$$(v1_funct_1 \ k3_borsuk_6) \wedge ((v1_funct_2 \ k3_borsuk_6 \ (u1_struct_0 \ k5_topmetr) \ (u1_struct_0 \ k5_topmetr)) \wedge (m1_subset_1 \ k3_borsuk_6 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (u1_struct_0 \ k5_topmetr) \ (u1_struct_0 \ k5_topmetr)))))) \quad (20)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_funct_1 \ X0) \wedge ((v1_funct_2 \ X0 \ (u1_struct_0 \ k5_topmetr) \ (u1_struct_0 \ k5_topmetr)) \wedge (m1_subset_1 \ X0 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (u1_struct_0 \ k5_topmetr) \ (u1_struct_0 \ k5_topmetr)))))) \Rightarrow ((X0 = \\ & \quad k3_borsuk_6) \Leftrightarrow (\forall X1. (m1_subset_1 \ X1 \ (u1_struct_0 \ k5_topmetr)) \Rightarrow \\ & \quad (((r1_xreal_0 \ X1 \ (k10_real_1 \ np_1 \ np_2)) \Rightarrow (k3_funct_2 \ (u1_struct_0 \ k5_topmetr) \ (u1_struct_0 \ k5_topmetr) \ X0 \ X1 = k8_real_1 \ np_2 \ X1)) \wedge \\ & \quad ((\neg r1_xreal_0 \ X1 \ (k10_real_1 \ np_1 \ np_2)) \Rightarrow (k3_funct_2 \ (u1_struct_0 \ k5_topmetr) \ (u1_struct_0 \ k5_topmetr) \ X0 \ X1 = np_1)))))) \quad (21) \end{aligned}$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (v1_xreal_0 \ X0) \quad (22)$$

Theorem 1

$$(k1_funct_1 \ k3_borsuk_6 \ k6_numbers = k6_numbers) \wedge (k1_funct_1 \ k3_borsuk_6 \ np_1 = np_1)$$