

l6_borsuk_7

(TMXn8ER4uwNHgNmTk4D1jwZEX6tMj9ECNDs)

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Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k13_complex1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $np_2 : \iota$ be given. Let $k2_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k17_borsuk_1 : \iota$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $k7_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_xcmplx_0 : \iota \Rightarrow \iota$ 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 $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xcmplx_0 : \iota$ be given. Let $k6_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $c1_borsuk_7 : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\neg(\neg r1_xxreal_0 X0 X1) \wedge (\neg v3_xxreal_0 X1) \wedge (\neg v2_xxreal_0 X0)))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (\forall X2.(v1_xreal_0 X2) \Rightarrow ((r1_xxreal_0 X0 X1) \Leftrightarrow (r1_xxreal_0 (k2_xcmplx_0 X0 X2) (k2_xcmplx_0 X1 X2)))))) \quad (2)$$

Assume the following.

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

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (((r1_xxreal_0 k6_numbers X0) \wedge (r1_xxreal_0 X0 np_1)) \Leftrightarrow (X0 \in u1_struct_0 k17_borsuk_1)) \quad (4)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (v3_xxreal_0 X1)) \Rightarrow (v3_xxreal_0 X0))) \quad (5)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow (((r1_xxreal_0 X0 X1) \wedge (v2_xxreal_0 X0)) \Rightarrow (v2_xxreal_0 X1))) \quad (6)$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \quad (7)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k7_xcmplx_0 np_1 X0 = k5_xcmplx_0 X0) \quad (8)$$

Assume the following.

$$((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \quad (9)$$

Assume the following.

$$((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \quad (10)$$

Assume the following.

$$(m2_subset_1 np_0 k1_numbers k5_numbers) \wedge ((m1_subset_1 np_0 k5_numbers) \wedge (m1_subset_1 np_0 k1_numbers)) \quad (11)$$

Assume the following.

$$k4_xcmplx_0 (k7_xcmplx_0 (k4_xcmplx_0 np_1) np_2) = k7_xcmplx_0 np_1 np_2 \quad (12)$$

Assume the following.

$$k4_xcmplx_0 (k7_xcmplx_0 np_1 np_2) = k7_xcmplx_0 (k4_xcmplx_0 np_1) np_2 \quad (13)$$

Assume the following.

$$k4_xcmplx_0 np_0 = np_0 \quad (14)$$

Assume the following.

$$k3_xcmplx_0 k1_xcmplx_0 k1_xcmplx_0 = k4_xcmplx_0 np_1 \quad (15)$$

Assume the following.

$$k7_xcmplx_0 np_1 (k4_xcmplx_0 np_2) = k7_xcmplx_0 (k4_xcmplx_0 np_1) np_2 \quad (16)$$

Assume the following.

$$k6_xcmplx_0 (k4_xcmplx_0 np_1) np_1 = k4_xcmplx_0 np_2 \quad (17)$$

Assume the following.

$$k2_xcmplx_0 (k7_xcmplx_0 np_1 np_2) (k7_xcmplx_0 np_1 np_2) = np_1 \quad (18)$$

Assume the following.

$$\neg r1_xreal_0 np_0 (k7_xcmplx_0 (k4_xcmplx_0 np_1) np_2) \quad (19)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (20)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (21)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(k13_complex1 X0 X1 = k7_xcmplx_0 X0 X1) \quad (22)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xreal_0 X1))\Rightarrow(v1_xreal_0 (k7_xcmplx_0 X0 X1)) \quad (23)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xreal_0 X0)\wedge(v1_xreal_0 X1))\Rightarrow(v1_xreal_0 (k2_xcmplx_0 X0 X1)) \quad (24)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(v1_xcmplx_0 (k6_xcmplx_0 X0 X1)) \quad (25)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow((v1_xcmplx_0 (k4_xcmplx_0 X0))\wedge (v1_xreal_0 (k4_xcmplx_0 X0))) \quad (26)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xcmplx_0 X0)\wedge(v1_xcmplx_0 X1))\Rightarrow(v1_xcmplx_0 (k3_xcmplx_0 X0 X1)) \quad (27)$$

Assume the following.

$$v1_xcmplx_0 \ k1_xcmplx_0 \quad (28)$$

Assume the following.

$$\forall X0.((\neg v3_xxreal_0 \ X0) \wedge (v1_xreal_0 \ X0)) \Rightarrow ((v1_xcmplx_0 \ (k4_xcmplx_0 \ X0)) \wedge (\neg v2_xxreal_0 \ (k4_xcmplx_0 \ X0))) \quad (29)$$

Assume the following.

$$\forall X0.((\neg v2_xxreal_0 \ X0) \wedge (v1_xreal_0 \ X0)) \Rightarrow ((v1_xcmplx_0 \ (k4_xcmplx_0 \ X0)) \wedge (\neg v3_xxreal_0 \ (k4_xcmplx_0 \ X0))) \quad (30)$$

Assume the following.

$$\forall X0. \forall X1.(((v2_xxreal_0 \ X0) \wedge (v1_xreal_0 \ X0)) \wedge (\neg v3_xxreal_0 \ X1) \wedge (v1_xreal_0 \ X1)) \Rightarrow (v2_xxreal_0 \ (k2_xcmplx_0 \ X1 \ X0)) \quad (31)$$

Assume the following.

$$v7_ordinal1 \ c1_borsuk_7 \quad (32)$$

Assume the following.

$$c1_borsuk_7 = k6_numbers \quad (33)$$

Assume the following.

$$\forall X0. \forall X1.((v1_xxreal_0 \ X0) \wedge (v1_xxreal_0 \ X1)) \Rightarrow ((r1_xxreal_0 \ X0 \ X1) \vee (r1_xxreal_0 \ X1 \ X0)) \quad (34)$$

Assume the following.

$$\forall X0.((v1_xxreal_0 \ X0) \wedge ((\neg v2_xxreal_0 \ X0) \wedge (\neg v3_xxreal_0 \ X0))) \Rightarrow ((v1_xboole_0 \ X0) \wedge (v1_xxreal_0 \ X0)) \quad (35)$$

Assume the following.

$$\forall X0.(v1_xreal_0 \ X0) \Rightarrow (v1_xxreal_0 \ X0) \quad (36)$$

Assume the following.

$$\forall X0.(v7_ordinal1 \ X0) \Rightarrow (v1_xreal_0 \ X0) \quad (37)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k5_numbers) \Rightarrow (\neg v3_xxreal_0 \ X0) \quad (38)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (v1_xreal_0 \ X0) \quad (39)$$

Assume the following.

$$\forall X0.(m1_subset_1 \ X0 \ k1_numbers) \Rightarrow (v1_xcmplx_0 \ X0) \quad (40)$$

Theorem 1

$$\forall X_0. (v1_xreal_0 X_0) \Rightarrow (((r1_xreal_0 k6_numbers X_0) \wedge (r1_xreal_0 X_0 (k13_complex1 np_1 np_2))) \Rightarrow (k2_xcmplx_0 X_0 (k13_complex1 np_1 np_2) \in u1_struct_0 k17_borsuk_1))$$