

t14_borsuk_7

(TMVVopVGtka8V8xsX96zQ2FM1sYSy1W93SB)

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Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k6_euclid : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_euclid : \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_valued_0 : \iota \Rightarrow o$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k30_valued_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_0 : \iota$ 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 $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k1_euclid : \iota \Rightarrow \iota$ be given. Let $k5_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_euclid : \iota \Rightarrow \iota$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Let $v3_relat_1 : \iota \Rightarrow o$ be given. Let $v4_valued_0 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $r1_xreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v1_valued_0 X0))) \Rightarrow \\ & \quad ((k9_xtuple_0 (k30_valued_1 X0) = k9_xtuple_0 X0) \wedge (\forall X1. \\ & \quad k1_funct_1 (k30_valued_1 X0) X1 = k4_xcmplx_0 (k1_funct_1 X0 X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((v1_finseq_1 \\ & X0) \wedge (v1_valued_0 X0)))) \Rightarrow (k3_finseq_1 (k30_valued_1 X0) = k3_finseq_1 \\ & \quad X0) \end{aligned} \tag{3}$$

Assume the following.

$$(m2_subset_1 np_0 k1_numbers k5_numbers) \wedge ((m1_subset_1 np_0 k5_numbers) \wedge (m1_subset_1 np_0 k1_numbers)) \tag{4}$$

Assume the following.

$$v1_xboole_0 \text{ np_}0 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0) \Rightarrow (\forall X2.(m2_finseq_2 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (6)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0) \wedge (m1_subset_1 X1 (k1_euclid X0))) \Rightarrow (k6_euclid X0 X1 = k30_valued_1 X1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0) \wedge ((v7_ordinal1 X1) \wedge (m1_subset_1 X2 X0))) \Rightarrow (k5_finseq_2 X0 X1 X2 = k2_finseq_2 X1 X2) \quad (9)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (k5_euclid X0 = k4_euclid X0) \quad (10)$$

Assume the following.

$$\forall X0.(v1_xcmplx_0 X0) \Rightarrow (k4_xcmplx_0 (k4_xcmplx_0 X0) = X0) \quad (11)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow ((v1_relat_1 (k2_finseq_2 X0 k6_numbers)) \wedge ((v3_relat_1 (k2_finseq_2 X0 k6_numbers)) \wedge ((v1_funct_1 (k2_finseq_2 X0 k6_numbers)) \wedge (v1_finseq_1 (k2_finseq_2 X0 k6_numbers)))))) \quad (12)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge (v1_xcmplx_0 X0)) \Rightarrow ((\neg v1_xboole_0 (k4_xcmplx_0 X0)) \wedge (v1_xcmplx_0 (k4_xcmplx_0 X0))) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v4_valued_0 X0))) \Rightarrow (v7_ordinal1 (k1_funct_1 X0 X1)) \quad (14)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge ((v1_valued_0 X0) \wedge (v1_finseq_1 X0)))) \Rightarrow ((v1_relat_1 (k30_valued_1 X0)) \wedge ((v1_funct_1 (k30_valued_1 X0)) \wedge ((v1_valued_0 (k30_valued_1 X0)) \wedge (v1_finseq_1 (k30_valued_1 X0)))))) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v3_valued_0 X0)))\Rightarrow(v1_xreal_0 (k1_funct_1 X0 X1)) \quad (16)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v3_valued_0 X0)))\Rightarrow((v1_relat_1 (k30_valued_1 X0))\wedge((v1_funct_1 (k30_valued_1 X0))\wedge((v1_valued_0 (k30_valued_1 X0))\wedge(v3_valued_0 (k30_valued_1 X0)))))) \quad (17)$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0)\Rightarrow((v1_xcmplx_0 (k4_xcmplx_0 X0))\wedge(v1_xreal_0 (k4_xcmplx_0 X0))) \quad (18)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (19)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v3_relat_1 X0)\wedge(v1_funct_1 X0)))\Rightarrow(v1_xboole_0 (k1_funct_1 X0 X1)) \quad (20)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(m2_finseq_2 (k5_euclid X0) k1_numbers (k1_euclid X0)) \quad (21)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow((v1_relat_1 (k4_euclid X0))\wedge((v1_funct_1 (k4_euclid X0))\wedge((v1_finseq_1 (k4_euclid X0))\wedge(v3_valued_0 (k4_euclid X0)))))) \quad (22)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(m1_finseq_2 (k1_euclid X0) k1_numbers) \quad (23)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0)\Rightarrow(k4_euclid X0 = k5_finseq_2 k1_numbers X0 k6_numbers) \quad (24)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v1_finseq_1 X0)))\Rightarrow(\forall X1.((v1_relat_1 X1)\wedge((v1_funct_1 X1)\wedge(v1_finseq_1 X1)))\Rightarrow((X0 = X1)\Leftrightarrow((k3_finseq_1 X0 = k3_finseq_1 X1)\wedge(\forall X2.(v7_ordinal1 X2)\Rightarrow(((r1_xxreal_0 np_1 X2)\wedge(r1_xxreal_0 X2 (k3_finseq_1 X0))\Rightarrow(k1_funct_1 X0 X2 = k1_funct_1 X1 X2)))))) \quad (25)$$

Assume the following.

$$\forall X0.((v1_xboole_0 X0) \wedge (v1_relat_1 X0)) \Rightarrow ((v1_relat_1 X0) \wedge (v4_valued_0 X0)) \quad (26)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v4_valued_0 X0)) \Rightarrow ((v1_relat_1 X0) \wedge (v3_valued_0 X0)) \quad (27)$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v3_valued_0 X0)) \Rightarrow ((v1_relat_1 X0) \wedge (v1_valued_0 X0)) \quad (28)$$

Assume the following.

$$\forall X0.((v1_xboole_0 X0) \wedge (v1_relat_1 X0)) \Rightarrow ((v1_relat_1 X0) \wedge (v3_relat_1 X0)) \quad (29)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xcmplx_0 X0) \quad (30)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v1_relat_1 X0) \quad (31)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v1_funct_1 X0) \quad (32)$$

Theorem 1

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (k6_euclid X0 \wedge (k5_euclid X0) = k5_euclid X0)$$