

t23_hilbert2 (TM-
GAs5bJGvnvMsvCBVRL2TQqEk8jcFF3Jea)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_hilbert1 : \iota$ be given. Let $k4_hilbert1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_hilbert1 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow ((X1 = k9_finseq_1 X0) \Leftrightarrow ((k3_finseq_1 X1 = np_1) \wedge (k1_funct_1 X1 np_1 = X0))) \quad (1)$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \quad (2)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k1_hilbert1) \Rightarrow (\forall X1. (m1_subset_1 X1 k1_hilbert1) \Rightarrow ((\neg r1_xxreal_0 (k3_finseq_1 (k4_hilbert1 X0 X1)) (k3_finseq_1 X0)) \wedge (\neg r1_xxreal_0 (k3_finseq_1 (k4_hilbert1 X0 X1)) (k3_finseq_1 X1)))) \quad (3)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 k1_hilbert1) \Rightarrow (r1_xxreal_0 np_1 (k3_finseq_1 X0)) \quad (4)$$

Assume the following.

$$\forall X0. k9_finseq_1 X0 = k5_finseq_1 X0 \quad (5)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (6)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow (k12_finseq_1 X0 X1 = k5_finseq_1 X1) \quad (8)$$

Assume the following.

$$\forall X0.v1_finseq_1 (k5_finseq_1 X0) \quad (9)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (10)$$

Assume the following.

$$\forall X0.(v1_relat_1 (k5_finseq_1 X0))\wedge(v1_funct_1 (k5_finseq_1 X0)) \quad (11)$$

Assume the following.

$$k2_hilbert1 = k12_finseq_1 k5_numbers k6_numbers \quad (12)$$

Theorem 1

$$\forall X0.(m1_subset_1 X0 k1_hilbert1)\Rightarrow(\forall X1.(m1_subset_1 X1 k1_hilbert1)\Rightarrow(k4_hilbert1 X0 X1\neq k2_hilbert1))$$