

t12_cohsp_1
(TMKdDvXBL3cbEJgyz23znJZjVQQeg51UoCN)

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Let $v1_cohsp_1 : \iota \Rightarrow o$ be given. Let $k5_finsub_1 : \iota \Rightarrow \iota$ be given. Let $v2_cohsp_1 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_finsub_1 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((r1_tarski X0 X1)\wedge(r1_tarski X2 X1))\Rightarrow(r1_tarski (k2_xboole_0 X0 X2) X1) \quad (1)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0)\Rightarrow((\forall X1.\forall X2.\neg(X1 \in X0)\wedge((X2 \in X0)\wedge(\forall X3.\neg(r1_tarski X3 (k3_xboole_0 X1 X2))\wedge(X3 \in X0))))\Rightarrow(v2_cohsp_1 X0)) \quad (2)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0)\wedge(v4_finsub_1 X0))\Rightarrow(k1_xboole_0 \in X0) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.\neg(X0 \in X1)\wedge(v1_xboole_0 X1) \quad (4)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0)\Rightarrow((\forall X1.\forall X2.\neg(X1 \in X0)\wedge((X2 \in X0)\wedge(\forall X3.\neg(r1_tarski (k2_xboole_0 X1 X2) X3)\wedge(X3 \in X0))))\Rightarrow(v1_cohsp_1 X0)) \quad (5)$$

Assume the following.

$$\forall X0.r1_tarski k1_xboole_0 X0 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.r1_tarski X0 X0 \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.((v1_finset_1 X0)\wedge(v1_finset_1 X1))\Rightarrow(v1_finset_1 (k2_xboole_0 X0 X1)) \quad (8)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 (k5_finsub_1 X0))\wedge(v4_finsub_1 (k5_finsub_1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.v4_finsub_1 (k5_finsub_1 X0) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(v4_finsub_1 X1)\Rightarrow((X1 = k5_finsub_1 X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow((r1_tarski X2 X0)\wedge(v1_finset_1 X2)))) \quad (11)$$

Theorem 1

$$\forall X0.(v1_cohsp_1 (k5_finsub_1 X0))\wedge(v2_cohsp_1 (k5_finsub_1 X0))$$