

t14_cohsp_1 (TM-
cMDjj4seNMc9QFgN78E9h51WmQoSAmQf)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_classes1 : \iota \Rightarrow o$ be given. Let $v1_coh_sp : \iota \Rightarrow o$ be given. Let $v1_cohsp_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v1_cohsp_1 X0) \Rightarrow (\forall X1.\forall X2.\neg(X1 \in X0) \wedge \\ ((X2 \in X0) \wedge (\forall X3.\neg(r1_tarski (k2_xboole_0 X1 X2) X3) \wedge (X3 \in X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_coh_sp X0) \Leftrightarrow (\forall X1.(\forall X2.\forall X3. \\ ((X2 \in X1) \wedge (X3 \in X1)) \Rightarrow (k2_xboole_0 X2 X3 \in X0)) \Rightarrow (k3_tarski X1 \in X0)) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.(v1_classes1 X0) \Leftrightarrow (\forall X1.\forall X2.((X1 \in X0) \wedge (r1_tarski X2 X1)) \Rightarrow (X2 \in X0)) \quad (5)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_classes1 X0) \wedge (v1_coh_sp \\ X0))) \Rightarrow (\forall X1.((v1_cohsp_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ X0))) \Rightarrow (k3_tarski X1 \in X0)) \end{aligned}$$