

t70_cohsp_1
(TMUXiytB6k9z2gBBY3ERZqgGHCoEw4wkVff)

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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 $k13_cohsp_1 : \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_tarski : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k8_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 X1) \wedge ((v1_classes1 X1) \wedge \\ (v1_coh_sp X1))) \Rightarrow ((X0 \in X1) \Leftrightarrow (\forall X2. \forall X3. ((X2 \in X0) \wedge \\ (X3 \in X0)) \Rightarrow (k2_tarski X2 X3 \in X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v1_xboole_0 X0) \wedge ((v1_classes1 X0) \wedge (v1_coh_sp \\ X0))) \Rightarrow (\forall X1. \forall X2. (r1_tarski (k2_tarski X1 X2) (k3_tarski \\ X0)) \Rightarrow ((k2_tarski X1 X2 \in X0) \vee (k2_tarski X1 X2 \in k13_cohsp_1 X0))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v1_xboole_0 X0) \wedge ((v1_classes1 X0) \wedge (v1_coh_sp \\ X0))) \Rightarrow (\forall X1. \forall X2. \neg (X1 \neq X2) \wedge ((k2_tarski X1 X2 \in X0) \wedge \\ (k2_tarski X1 X2 \in k13_cohsp_1 X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v1_xboole_0 X0) \wedge ((v1_classes1 X0) \wedge (v1_coh_sp \\ X0))) \Rightarrow (k3_tarski (k13_cohsp_1 X0) = k3_tarski X0) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((\neg v1_xboole_0 X1) \wedge ((v1_classes1 X1) \wedge \\ (v1_coh_sp X1))) \Rightarrow ((X0 \in k3_tarski X1) \Rightarrow (k1_tarski X0 \in X1)) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. k2_tarski X0 X0 = k1_tarski X0 \quad (6)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_classes1 X0) \wedge (v1_coh_sp X0))) \Rightarrow (r1_tarski (k13_cohsp_1 (k13_cohsp_1 X0)) X0) \quad (7)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_classes1 X0) \wedge (v1_coh_sp X0))) \Rightarrow ((\neg v1_xboole_0 (k13_cohsp_1 X0)) \wedge ((v1_classes1 (k13_cohsp_1 X0)) \wedge (v1_coh_sp (k13_cohsp_1 X0)))) \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. (X1 = k3_tarski X0) \Leftrightarrow (\forall X2. (X2 \in X1) \Leftrightarrow (\exists X3. (X2 \in X3) \wedge (X3 \in X0))) \quad (9)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (10)$$

Assume the following.

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_classes1 X0) \wedge (v1_coh_sp X0))) \Rightarrow (k13_cohsp_1 X0 = ReplSep (toset (\lambda X1 : \iota. m1_subset_1 X1 (k1_zfmisc_1 (k3_tarski X0)))) (\lambda X1 : \iota. \forall X2. (m1_subset_1 X2 X0) \Rightarrow (\exists X3. r1_tarski (k8_subset_1 (k3_tarski X0) X1 X2) (k1_tarski X3)) (\lambda X1 : \iota. X1))) \quad (11)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1_tarski X0 X1) \wedge (r1_tarski X1 X0)) \quad (12)$$

Theorem 1

$$\forall X0.((\neg v1_xboole_0 X0) \wedge ((v1_classes1 X0) \wedge (v1_coh_sp X0))) \Rightarrow (k13_cohsp_1 (k13_cohsp_1 X0) = X0)$$