

t87_cohsp_1
(TMP6AbDew22BdGaRmf2ZMeHwB3ZGr3HYETH)

October 27, 2020

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 $k16_cohsp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k14_cohsp_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_card_3 : \iota \Rightarrow \iota$ be given. Let $k2_card_3 : \iota \Rightarrow \iota$ be given. Let $k10_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. ((\neg v1_xboole_0 X0) \wedge ((v1_classes1 X0) \wedge (v1_coh_sp X0))) \Rightarrow (k1_xboole_0 \in X0) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (X2 = k2_xboole_0 X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v1_xboole_0 X0) \wedge ((v1_classes1 X0) \wedge (v1_coh_sp X0))) \Rightarrow (\forall X1. ((\neg v1_xboole_0 X1) \wedge ((v1_classes1 X1) \wedge (v1_coh_sp X1)))) \Rightarrow (k16_cohsp_1 X0 X1 = k2_xboole_0 (ReplSep (toset (\lambda X2 : \iota. m1_subset_1 X2 X0)) (\lambda X2 : \iota. True) (\lambda X2 : \iota. k14_cohsp_1 X2 X1)) (ReplSep (toset (\lambda X2 : \iota. m1_subset_1 X2 X1)) (\lambda X2 : \iota. True) (\lambda X2 : \iota. k14_cohsp_1 k1_xboole_0 X2)))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. k14_cohsp_1 X0 X1 = k3_card_3 (k2_card_3 (k10_finseq_1 X0 X1)) \quad (5)$$

Theorem 1

$$\begin{aligned} \forall X0. ((\neg v1_xboole_0 X0) \wedge ((v1_classes1 X0) \wedge (v1_coh_sp X0))) \Rightarrow (\forall X1. ((\neg v1_xboole_0 X1) \wedge ((v1_classes1 X1) \wedge (v1_coh_sp X1)))) \Rightarrow (\forall X2. \neg (X2 \in k16_cohsp_1 X0 X1) \wedge (\forall X3. (m1_subset_1 X3 X0) \Rightarrow (\forall X4. (m1_subset_1 X4 X1) \Rightarrow (\neg (X2 = k14_cohsp_1 X3 X4) \wedge ((X3 = k1_xboole_0) \vee (X4 = k1_xboole_0))))))) \end{aligned}$$