

t2_inensp_1 (TMY-
dkz9wBEuKkM1DLfzAuZmJghb9ppftWuT)

October 27, 2020

Let $l1_incsp_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u2_incsp_1 : \iota \Rightarrow \iota$ be given. Let $u1_incsp_1 : \iota \Rightarrow \iota$ be given. Let $r4_incsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k8_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_incsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 X0) \wedge \\ & ((m1_subset_1 X1 X0) \wedge ((m1_subset_1 X2 X0) \wedge (m1_subset_1 X3 X0)))) \Rightarrow \\ & (k8_domain_1 X0 X1 X2 X3 = k1_enumset1 X1 X2 X3) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. (l1_incsp_1 X0) \Rightarrow (\neg v1_xboole_0 (u1_incsp_1 X0)) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 X0) \wedge \\ & ((m1_subset_1 X1 X0) \wedge ((m1_subset_1 X2 X0) \wedge (m1_subset_1 X3 X0)))) \Rightarrow \\ & (m1_subset_1 (k8_domain_1 X0 X1 X2 X3) (k1_zfmisc_1 X0)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. (l1_incsp_1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ & (u1_incsp_1 X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u2_incsp_1 X0)) \Rightarrow \\ & ((r4_incsp_1 X0 X1 X2) \Leftrightarrow (\forall X3. (m1_subset_1 X3 (u1_incsp_1 \\ & X0)) \Rightarrow ((X3 \in X1) \Rightarrow (r1_incsp_1 X0 X3 X2)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (X3 = k1_enumset1 \\ & X0 X1 X2) \Leftrightarrow (\forall X4. (X4 \in X3) \Leftrightarrow (\neg (X4 \neq X0) \wedge ((X4 \neq X1) \wedge (X4 \neq X2)))) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.(l1_incsp_1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u2_incsp_1 \\ & X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_incsp_1 X0)) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (u1_incsp_1 X0)) \Rightarrow (\forall X4.(m1_subset_1 X4 \\ & (u1_incsp_1 X0)) \Rightarrow ((r4_incsp_1 X0 (k8_domain_1 (u1_incsp_1 X0) \\ & X2 X3 X4) X1) \Leftrightarrow ((r1_incsp_1 X0 X2 X1) \wedge ((r1_incsp_1 X0 X3 X1) \wedge (r1_incsp_1 \\ & X0 X4 X1)))))))))) \end{aligned}$$