

t5_incsp_1 (TM- LUD9mpFzKDuLHhKeiAJBtLyZFEvCb3xV)

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Let $l2_incsp_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_incsp_1 : \iota \Rightarrow \iota$ be given. Let $u4_incsp_1 : \iota \Rightarrow \iota$ be given. Let $r5_incsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k9_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_incsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k2_enumset1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1_incsp_1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((\neg v1_xboole_0 \\ & X0) \wedge ((m1_subset_1 X1 X0) \wedge ((m1_subset_1 X2 X0) \wedge ((m1_subset_1 \\ & X3 X0) \wedge (m1_subset_1 X4 X0)))))) \Rightarrow (k9_domain_1 X0 X1 X2 X3 X4 = k2_enumset1 \\ & X1 X2 X3 X4) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. (l1_incsp_1 X0) \Rightarrow (\neg v1_xboole_0 (u1_incsp_1 X0)) \tag{2}$$

Assume the following.

$$\forall X0. (l2_incsp_1 X0) \Rightarrow (l1_incsp_1 X0) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((\neg v1_xboole_0 \\ & X0) \wedge ((m1_subset_1 X1 X0) \wedge ((m1_subset_1 X2 X0) \wedge ((m1_subset_1 \\ & X3 X0) \wedge (m1_subset_1 X4 X0)))))) \Rightarrow (m1_subset_1 (k9_domain_1 X0 X1 \\ & X2 X3 X4) (k1_zfmisc_1 X0)) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0. (l2_incsp_1 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 \\ & (u1_incsp_1 X0))) \Rightarrow (\forall X2. (m1_subset_1 X2 (u4_incsp_1 X0)) \Rightarrow \\ & ((r5_incsp_1 X0 X1 X2) \Leftrightarrow (\forall X3. (m1_subset_1 X3 (u1_incsp_1 \\ & X0)) \Rightarrow ((X3 \in X1) \Rightarrow (r2_incsp_1 X0 X3 X2)))))) \end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(X4 = k2_enumset1 \\ & X0\ X1\ X2\ X3) \Leftrightarrow (\forall X5.(X5 \in X4) \Leftrightarrow (\neg(X5 \neq X0) \wedge ((X5 \neq X1) \wedge ((X5 \neq X2) \wedge \\ & (X5 \neq X3)))))) \end{aligned} \tag{6}$$

Theorem 1

$$\begin{aligned} & \forall X0.(l2_incsp_1\ X0) \Rightarrow (\forall X1.(m1_subset_1\ X1\ (u1_incsp_1 \\ & X0)) \Rightarrow (\forall X2.(m1_subset_1\ X2\ (u1_incsp_1\ X0)) \Rightarrow (\forall X3. \\ & (m1_subset_1\ X3\ (u1_incsp_1\ X0)) \Rightarrow (\forall X4.(m1_subset_1\ X4 \\ & (u1_incsp_1\ X0)) \Rightarrow (\forall X5.(m1_subset_1\ X5\ (u4_incsp_1\ X0)) \Rightarrow \\ & ((r5_incsp_1\ X0\ (k9_domain_1\ (u1_incsp_1\ X0)\ X1\ X2\ X3\ X4)\ X5) \Leftrightarrow ((\\ & r2_incsp_1\ X0\ X1\ X5) \wedge ((r2_incsp_1\ X0\ X2\ X5) \wedge ((r2_incsp_1\ X0\ X3\ X5) \wedge \\ & (r2_incsp_1\ X0\ X4\ X5)))))))))) \end{aligned}$$