

t11_incsp_1
(TMEsiD6QLEhJEV5wFQC41dgSR6oWWxgeqs3)

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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 $u4_incsp_1 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_incsp_1 : \iota \Rightarrow \iota$ be given. Let $r5_incsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2_incsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.((X0 \in X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X2))) \Rightarrow (m1_subset_1 X0 X2) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 X0))) \Rightarrow (k4_subset_1 X0 X1 X2 = k2_xboole_0 X1 X2) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 X0)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 X0))) \Rightarrow (m1_subset_1 (k4_subset_1 X0 X1 X2) (k1_zfmisc_1 X0)) \quad (3)$$

Assume the following.

$$\forall X0.(l2_incsp_1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (u1_incsp_1 X0))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u4_incsp_1 X0)) \Rightarrow ((r5_incsp_1 X0 X1 X2) \Leftrightarrow (\forall X3.(m1_subset_1 X3 (u1_incsp_1 X0)) \Rightarrow ((X3 \in X1) \Rightarrow (r2_incsp_1 X0 X3 X2)))))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2_xboole_0 X0 X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0.(l2_incsp_1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u4_incsp_1 \\ & X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (u1_incsp_1 X0))) \Rightarrow \\ & (\forall X3.(m1_subset_1 X3 (k1_zfmisc_1 (u1_incsp_1 X0))) \Rightarrow (\\ & (r5_incsp_1 X0 (k4_subset_1 (u1_incsp_1 X0) X2 X3) X1) \Leftrightarrow ((r5_incsp_1 \\ & X0 X2 X1) \wedge (r5_incsp_1 X0 X3 X1)))))) \end{aligned}$$