

l28_conlat_1 (TMMEf- PVUB7SkqdYxQkL4R89RB618QHRyw2N)

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Let $v1_conlat_1 : \iota \Rightarrow o$ be given. Let $l1_conlat_1 : \iota \Rightarrow o$ be given. Let $l2_conlat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_conlat_1 : \iota \Rightarrow \iota$ be given. Let $u2_conlat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u3_conlat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5_conlat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $l5_struct_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_subset_1 : \iota \Rightarrow \iota$ be given. Let $r1_conlat_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \neg(X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (2)$$

Assume the following.

$$\forall X0. k9_setfam_1 X0 = k1_zfmisc_1 X0 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((l5_struct_0 X0) \wedge (l2_conlat_1 X1 X0)) \Rightarrow (m1_subset_1 (u2_conlat_1 X0 X1) (k1_zfmisc_1 (u1_struct_0 X0))) \quad (4)$$

Assume the following.

$$\forall X0. (l1_conlat_1 X0) \Rightarrow (l5_struct_0 X0) \quad (5)$$

Assume the following.

$$\forall X0. ((\neg v1_conlat_1 X0) \wedge (l1_conlat_1 X0)) \Rightarrow ((v1_funct_1 (k1_conlat_1 X0)) \wedge ((v1_funct_2 (k1_conlat_1 X0) (k9_setfam_1 (u1_struct_0 X0)) (k9_setfam_1 (u4_struct_0 X0))) \wedge (m1_subset_1 (k1_conlat_1 X0) (k1_zfmisc_1 (k2_zfmisc_1 (k9_setfam_1 (u1_struct_0 X0)) (k9_setfam_1 (u4_struct_0 X0))))))) \quad (6)$$

Assume the following.

$$\forall X0.m1_subset_1 (k10_subset_1 X0) X0 \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l5_struct_0 X0) \Rightarrow (\forall X1.(l2_conlat_1 X1 X0) \Rightarrow \\ & ((v5_conlat_1 X1 X0) \Leftrightarrow ((v1_xboole_0 (u2_conlat_1 X0 X1)) \wedge (v1_xboole_0 \\ & (u3_conlat_1 X0 X1)))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_conlat_1 X0) \wedge (l1_conlat_1 X0)) \Rightarrow (\forall X1. \\ & ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 (k9_setfam_1 (u1_struct_0 X0)) \\ & (k9_setfam_1 (u4_struct_0 X0))) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k9_setfam_1 (u1_struct_0 X0)) (k9_setfam_1 (u4_struct_0 \\ & X0)))))) \Rightarrow ((X1 = k1_conlat_1 X0) \Leftrightarrow (\forall X2.(m1_subset_1 X2 \\ & (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (k3_funct_2 (k1_zfmisc_1 (u1_struct_0 \\ & X0)) (k9_setfam_1 (u4_struct_0 X0)) X1 X2 = ReplSep (toset (\lambda X3 : \\ & \iota.m1_subset_1 X3 (u4_struct_0 X0))) (\lambda X3 : \iota.\forall X4. \\ & (m1_subset_1 X4 (u1_struct_0 X0)) \Rightarrow ((X4 \in X2) \Rightarrow (r1_conlat_1 X0 X4 \\ & X3))) (\lambda X3 : \iota.X3)))))) \end{aligned} \quad (9)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v1_conlat_1 X0) \wedge (l1_conlat_1 X0)) \Rightarrow (\forall X1. \\ & (l2_conlat_1 X1 X0) \Rightarrow (\neg (k3_funct_2 (k1_zfmisc_1 (u1_struct_0 \\ & X0)) (k9_setfam_1 (u4_struct_0 X0)) (k1_conlat_1 X0) (u2_conlat_1 \\ & X0 X1) = u3_conlat_1 X0 X1) \wedge (v5_conlat_1 X1 X0))) \end{aligned}$$