

t28_conlat_1

(TMUcmoaPbsQ9QBUrupCu5dVn63jZbD4a6px)

October 27, 2020

Let $v1_conlat_1 : \iota \Rightarrow o$ be given. Let $l1_conlat_1 : \iota \Rightarrow o$ be given. Let $v5_conlat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_conlat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l2_conlat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2_conlat_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u3_conlat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_conlat_1 : \iota \Rightarrow \iota$ be given. Let $k1_conlat_1 : \iota \Rightarrow \iota$ be given. Let $l5_struct_0 : \iota \Rightarrow o$ be given. Let $u2_conlat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_conlat_1 X0) \wedge (l1_conlat_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u4_struct_0 X0))) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u4_struct_0 X0))) \Rightarrow ((r1_tarski \\ & X1 X2) \Rightarrow (r1_tarski (k3_funct_2 (k1_zfmisc_1 (u4_struct_0 X0)) \\ & (k9_setfam_1 (u1_struct_0 X0)) (k2_conlat_1 X0) X2) (k3_funct_2 \\ & (k1_zfmisc_1 (u4_struct_0 X0)) (k9_setfam_1 (u1_struct_0 X0)) \\ & (k2_conlat_1 X0) X1)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_conlat_1 X0) \wedge (l1_conlat_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((r1_tarski \\ & X1 X2) \Rightarrow (r1_tarski (k3_funct_2 (k1_zfmisc_1 (u1_struct_0 X0)) \\ & (k9_setfam_1 (u4_struct_0 X0)) (k1_conlat_1 X0) X2) (k3_funct_2 \\ & (k1_zfmisc_1 (u1_struct_0 X0)) (k9_setfam_1 (u4_struct_0 X0)) \\ & (k1_conlat_1 X0) X1)))))) \end{aligned} \quad (2)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((l5_struct_0 X0) \wedge (l2_conlat_1 X1 X0)) \Rightarrow \\ & (m1_subset_1 (u3_conlat_1 X0 X1) (k1_zfmisc_1 (u4_struct_0 X0))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((l5_struct_0 X0)\wedge(l2_conlat_1 X1 X0))\Rightarrow (m1_subset_1 (u2_conlat_1 X0 X1) (k1_zfmisc_1 (u1_struct_0 X0))) \quad (5)$$

Assume the following.

$$\forall X0.(l1_conlat_1 X0)\Rightarrow(l5_struct_0 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} &\forall X0.((\neg v1_conlat_1 X0)\wedge(l1_conlat_1 X0))\Rightarrow(\forall X1. \\ &((\neg v5_conlat_1 X1 X0)\wedge((v7_conlat_1 X1 X0)\wedge(l2_conlat_1 X1 X0)))\Rightarrow \\ &(\forall X2.((\neg v5_conlat_1 X2 X0)\wedge((v7_conlat_1 X2 X0)\wedge(l2_conlat_1 \\ &X2 X0))))\Rightarrow((r2_conlat_1 X0 X1 X2)\Leftrightarrow(r1_tarski (u2_conlat_1 X0 X1) \\ &(u2_conlat_1 X0 X2)))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} &\forall X0.((\neg v1_conlat_1 X0)\wedge(l1_conlat_1 X0))\Rightarrow(\forall X1. \\ &(l2_conlat_1 X1 X0)\Rightarrow((v7_conlat_1 X1 X0)\Leftrightarrow((k3_funct_2 (k1_zfmisc_1 \\ &(u1_struct_0 X0)) (k9_setfam_1 (u4_struct_0 X0)) (k1_conlat_1 \\ &X0) (u2_conlat_1 X0 X1) = u3_conlat_1 X0 X1)\wedge(k3_funct_2 (k1_zfmisc_1 \\ &(u4_struct_0 X0)) (k9_setfam_1 (u1_struct_0 X0)) (k2_conlat_1 \\ &X0) (u3_conlat_1 X0 X1) = u2_conlat_1 X0 X1)))) \end{aligned} \quad (8)$$

Theorem 1

$$\begin{aligned} &\forall X0.((\neg v1_conlat_1 X0)\wedge(l1_conlat_1 X0))\Rightarrow(\forall X1. \\ &((\neg v5_conlat_1 X1 X0)\wedge((v7_conlat_1 X1 X0)\wedge(l2_conlat_1 X1 X0)))\Rightarrow \\ &(\forall X2.((\neg v5_conlat_1 X2 X0)\wedge((v7_conlat_1 X2 X0)\wedge(l2_conlat_1 \\ &X2 X0))))\Rightarrow((r2_conlat_1 X0 X1 X2)\Leftrightarrow(r1_tarski (u3_conlat_1 X0 X2) \\ &(u3_conlat_1 X0 X1)))) \end{aligned}$$