

t8_conlat_1
(TMbFehw9iELb6ujtYrtVB2f6ND9BQ5eviXW)

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Let $v1_conlat_1 : \iota \Rightarrow o$ be given. Let $l1_conlat_1 : \iota \Rightarrow o$ 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 $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ 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 $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_conlat_1 X0) \wedge (l1_conlat_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u4_struct_0 X0))) \Rightarrow (r1_tarski X1 \\ & (k3_funct_2 (k9_setfam_1 (u1_struct_0 X0)) (k9_setfam_1 (u4_struct_0 \\ & X0)) (k1_conlat_1 X0) (k3_funct_2 (k1_zfmisc_1 (u4_struct_0 X0)) \\ & (k9_setfam_1 (u1_struct_0 X0)) (k2_conlat_1 X0) X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_conlat_1 X0) \wedge (l1_conlat_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow (r1_tarski X1 \\ & (k3_funct_2 (k9_setfam_1 (u4_struct_0 X0)) (k9_setfam_1 (u1_struct_0 \\ & X0)) (k2_conlat_1 X0) (k3_funct_2 (k1_zfmisc_1 (u1_struct_0 X0)) \\ & (k9_setfam_1 (u4_struct_0 X0)) (k1_conlat_1 X0) X1)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1_conlat_1 X0) \wedge (l1_conlat_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u4_struct_0 X0))) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 (u4_struct_0 X0))) \Rightarrow ((r1_tarski \\ & X1 X2) \Rightarrow (r1_tarski (k3_funct_2 (k1_zfmisc_1 (u4_struct_0 X0)) \\ & (k9_setfam_1 (u1_struct_0 X0)) (k2_conlat_1 X0) X2) (k3_funct_2 \\ & (k1_zfmisc_1 (u4_struct_0 X0)) (k9_setfam_1 (u1_struct_0 X0)) \\ & (k2_conlat_1 X0) X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. k9_setfam_1 X0 = k1_zfmisc_1 X0 \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0)\wedge \\ & (((v1_funct_1 X2)\wedge((v1_funct_2 X2 X0 X1)\wedge(m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1))))))\wedge(m1_subset_1 X3 X0)))\Rightarrow(k3_funct_2 X0 \\ & X1 X2 X3 = k1_funct_1 X2 X3) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\neg v1_xboole_0 (k1_zfmisc_1 X0) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0)\wedge \\ & (((v1_funct_1 X2)\wedge((v1_funct_2 X2 X0 X1)\wedge(m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1))))))\wedge(m1_subset_1 X3 X0)))\Rightarrow(m1_subset_1 (\\ & k3_funct_2 X0 X1 X2 X3) X1) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_conlat_1 X0)\wedge(l1_conlat_1 X0))\Rightarrow((v1_funct_1 \\ & (k2_conlat_1 X0))\wedge((v1_funct_2 (k2_conlat_1 X0) (k9_setfam_1 \\ & (u4_struct_0 X0)) (k9_setfam_1 (u1_struct_0 X0)))\wedge(m1_subset_1 \\ & (k2_conlat_1 X0) (k1_zfmisc_1 (k2_zfmisc_1 (k9_setfam_1 (u4_struct_0 \\ & X0)) (k9_setfam_1 (u1_struct_0 X0))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_conlat_1 X0)\wedge(l1_conlat_1 X0))\Rightarrow((v1_funct_1 \\ & (k1_conlat_1 X0))\wedge((v1_funct_2 (k1_conlat_1 X0) (k9_setfam_1 \\ & (u1_struct_0 X0)) (k9_setfam_1 (u4_struct_0 X0)))\wedge(m1_subset_1 \\ & (k1_conlat_1 X0) (k1_zfmisc_1 (k2_zfmisc_1 (k9_setfam_1 (u1_struct_0 \\ & X0)) (k9_setfam_1 (u4_struct_0 X0))))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(X0 = X1)\Leftrightarrow((r1_tarski X0 X1)\wedge(r1_tarski X1 X0)) \quad (10)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v1_conlat_1 X0)\wedge(l1_conlat_1 X0))\Rightarrow(\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u4_struct_0 X0)))\Rightarrow(k3_funct_2 \\ & (k1_zfmisc_1 (u4_struct_0 X0)) (k9_setfam_1 (u1_struct_0 X0)) \\ & (k2_conlat_1 X0) X1 = k3_funct_2 (k9_setfam_1 (u4_struct_0 X0)) \\ & (k9_setfam_1 (u1_struct_0 X0)) (k2_conlat_1 X0) (k3_funct_2 (\\ & k9_setfam_1 (u1_struct_0 X0)) (k9_setfam_1 (u4_struct_0 X0)) \\ & (k1_conlat_1 X0) (k3_funct_2 (k1_zfmisc_1 (u4_struct_0 X0)) (\\ & k9_setfam_1 (u1_struct_0 X0)) (k2_conlat_1 X0) X1)))) \end{aligned}$$