

t24_conlat_1

(TMNXRd2ftDJZZoSxGXrTuoo2Ug7NbfBcxHf)

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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 $u2_conlat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v9_conlat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u3_conlat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v8_conlat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_conlat_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_conlat_1 : \iota \Rightarrow \iota$ be given. Let $u4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\forall X0.((\neg v1_conlat_1 X0) \wedge (l1_conlat_1 X0)) \Rightarrow (k1_funct_1 (k2_conlat_1 X0) k1_xboole_0 = u1_struct_0 X0) \quad (2)$$

Assume the following.

$$\forall X0.((\neg v1_conlat_1 X0) \wedge (l1_conlat_1 X0)) \Rightarrow (k1_funct_1 (k1_conlat_1 X0) k1_xboole_0 = u4_struct_0 X0) \quad (3)$$

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.

$$\forall X0.\exists X1.(m1_subset_1 X1 (k1_zfmisc_1 X0))\wedge(v1_xboole_0 X1) \quad (6)$$

Assume the following.

$$\forall X0.\neg v1_xboole_0 (k1_zfmisc_1 X0) \quad (7)$$

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.

$$\begin{aligned} \forall X0.((\neg v1_conlat_1 X0)\wedge(l1_conlat_1 X0))\Rightarrow(\forall X1. \\ (l2_conlat_1 X1 X0)\Rightarrow((v9_conlat_1 X1 X0)\Leftrightarrow(u3_conlat_1 X0 X1 = u4_struct_0 \\ X0))) \end{aligned} \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_conlat_1 X0)\wedge(l1_conlat_1 X0))\Rightarrow(\forall X1. \\ (l2_conlat_1 X1 X0)\Rightarrow((v8_conlat_1 X1 X0)\Leftrightarrow(u2_conlat_1 X0 X1 = u1_struct_0 \\ X0))) \end{aligned} \quad (11)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v1_conlat_1 X0)\wedge(l1_conlat_1 X0))\Rightarrow(\forall X1. \\ (l2_conlat_1 X1 X0)\Rightarrow((v7_conlat_1 X1 X0)\Leftrightarrow((k3_funct_2 (k1_zfmisc_1 \\ (u1_struct_0 X0)) (k9_setfam_1 (u4_struct_0 X0)) (k1_conlat_1 \\ X0) (u2_conlat_1 X0 X1) = u3_conlat_1 X0 X1)\wedge(k3_funct_2 (k1_zfmisc_1 \\ (u4_struct_0 X0)) (k9_setfam_1 (u1_struct_0 X0)) (k2_conlat_1 \\ X0) (u3_conlat_1 X0 X1) = u2_conlat_1 X0 X1)))) \end{aligned} \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v1_conlat_1 X0) \wedge (l1_conlat_1 X0)) \Rightarrow (\forall X1. \\ & ((\neg v5_conlat_1 X1 X0) \wedge (v7_conlat_1 X1 X0) \wedge (l2_conlat_1 X1 X0))) \Rightarrow \\ & (((u2_conlat_1 X0 X1 = k1_xboole_0) \Rightarrow (v9_conlat_1 X1 X0)) \wedge ((u3_conlat_1 \\ & X0 X1 = k1_xboole_0) \Rightarrow (v8_conlat_1 X1 X0))) \end{aligned}$$