

# t7\_conlat\_1 (TMLju- jgk4BG6pjAQdbNneaSUuTvDrZUMFC2)

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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  $u1\_struct\_0 : \iota \Rightarrow \iota$  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  $u4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_conlat\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_conlat\_1 : \iota \Rightarrow \iota$  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. 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.

$$\begin{aligned} & \forall X0. ((\neg v1\_conlat\_1 X0) \wedge (l1\_conlat\_1 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X2. \\ & (m1\_subset\_1 X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow ((r1\_tarski \\ & X1 X2) \Rightarrow (r1\_tarski (k3\_funct\_2 (k1\_zfmisc\_1 (u1\_struct\_0 X0)) \\ & (k9\_setfam\_1 (u4\_struct\_0 X0)) (k1\_conlat\_1 X0) X2) (k3\_funct\_2 \\ & (k1\_zfmisc\_1 (u1\_struct\_0 X0)) (k9\_setfam\_1 (u4\_struct\_0 X0)) \\ & (k1\_conlat\_1 X0) X1)))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. k9\_setfam\_1 X0 = k1\_zfmisc\_1 X0 \quad (4)$$

Assume the following.

$$\forall X0. \neg v1\_xboole\_0 (k1\_zfmisc\_1 X0) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1\_xboole\_0 X0) \wedge \\ & (((v1\_funct\_1 X2) \wedge ((v1\_funct\_2 X2 X0 X1) \wedge (m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & (k2\_zfmisc\_1 X0 X1)))))) \wedge (m1\_subset\_1 X3 X0))) \Rightarrow (m1\_subset\_1 ( \\ & k3\_funct\_2 X0 X1 X2 X3) X1) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1\_conlat\_1 X0) \wedge (l1\_conlat\_1 X0)) \Rightarrow ((v1\_funct\_1 \\ & (k2\_conlat\_1 X0)) \wedge ((v1\_funct\_2 (k2\_conlat\_1 X0) (k9\_setfam\_1 \\ & (u4\_struct\_0 X0)) (k9\_setfam\_1 (u1\_struct\_0 X0))) \wedge (m1\_subset\_1 \\ & (k2\_conlat\_1 X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k9\_setfam\_1 (u4\_struct\_0 \\ & X0)) (k9\_setfam\_1 (u1\_struct\_0 X0))))))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v1\_conlat\_1 X0) \wedge (l1\_conlat\_1 X0)) \Rightarrow ((v1\_funct\_1 \\ & (k1\_conlat\_1 X0)) \wedge ((v1\_funct\_2 (k1\_conlat\_1 X0) (k9\_setfam\_1 \\ & (u1\_struct\_0 X0)) (k9\_setfam\_1 (u4\_struct\_0 X0))) \wedge (m1\_subset\_1 \\ & (k1\_conlat\_1 X0) (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k9\_setfam\_1 (u1\_struct\_0 \\ & X0)) (k9\_setfam\_1 (u4\_struct\_0 X0))))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. (X0 = X1) \Leftrightarrow ((r1\_tarski X0 X1) \wedge (r1\_tarski X1 X0)) \quad (9)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. ((\neg v1\_conlat\_1 X0) \wedge (l1\_conlat\_1 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (k3\_funct\_2 \\ & (k1\_zfmisc\_1 (u1\_struct\_0 X0)) (k9\_setfam\_1 (u4\_struct\_0 X0)) \\ & (k1\_conlat\_1 X0) X1 = k3\_funct\_2 (k9\_setfam\_1 (u1\_struct\_0 X0)) \\ & (k9\_setfam\_1 (u4\_struct\_0 X0)) (k1\_conlat\_1 X0) (k3\_funct\_2 ( \\ & k9\_setfam\_1 (u4\_struct\_0 X0)) (k9\_setfam\_1 (u1\_struct\_0 X0)) \\ & (k2\_conlat\_1 X0) (k3\_funct\_2 (k1\_zfmisc\_1 (u1\_struct\_0 X0)) ( \\ & k9\_setfam\_1 (u4\_struct\_0 X0)) (k1\_conlat\_1 X0) X1)))) \end{aligned}$$