

t4\_conlat\_2  
(TMZNNSfqdjgMfEjvaZhS3r4Lob2fSS7tfUG)

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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  $k11\_conlat\_1 : \iota \Rightarrow \iota$  be given. Let  $v5\_conlat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k16\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$  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  $k15\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v10\_lattices : \iota \Rightarrow o$  be given. Let  $v4\_lattice3 : \iota \Rightarrow o$  be given. Let  $l3\_lattices : \iota \Rightarrow o$  be given. Let  $v4\_conlat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k12\_conlat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.((\neg v1\_conlat\_1 X0) \wedge (l1\_conlat\_1 X0)) \Rightarrow ((\neg v2\_struct\_0 (k11\_conlat\_1 X0)) \wedge ((v10\_lattices (k11\_conlat\_1 X0)) \wedge ((v4\_lattice3 (k11\_conlat\_1 X0)) \wedge (l3\_lattices (k11\_conlat\_1 X0)))))) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v2\_struct\_0 X0) \wedge (l3\_lattices X0)) \Rightarrow (m1\_subset\_1 (k16\_lattice3 X0 X1) (u1\_struct\_0 X0)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v2\_struct\_0 X0) \wedge (l3\_lattices X0)) \Rightarrow (m1\_subset\_1 (k15\_lattice3 X0 X1) (u1\_struct\_0 X0)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (((\neg v1\_conlat\_1 X0) \wedge (l1\_conlat\_1 X0)) \wedge (m1\_subset\_1 X1 (u1\_struct\_0 (k11\_conlat\_1 X0)))) \Rightarrow ((v4\_conlat\_1 (k12\_conlat\_1 X0 X1) X0) \wedge ((\neg v5\_conlat\_1 (k12\_conlat\_1 X0 X1) X0) \wedge ((v7\_conlat\_1 (k12\_conlat\_1 X0 X1) X0) \wedge (l2\_conlat\_1 (k12\_conlat\_1 X0 X1) X0)))) \quad (4)$$

Assume the following.

$$\forall X0. ((\neg v1\_conlat\_1 X0) \wedge (l1\_conlat\_1 X0)) \Rightarrow (\forall X1. (m1\_subset\_1 X1 (u1\_struct\_0 (k11\_conlat\_1 X0))) \Rightarrow (k12\_conlat\_1 X0 X1 = X1)) \quad (5)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v1\_conlat\_1 X0) \wedge (l1\_conlat\_1 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 (k1\_zfmisc\_1 (u1\_struct\_0 (k11\_conlat\_1 X0)))) \Rightarrow \\ & (((\neg v5\_conlat\_1 (k16\_lattice3 (k11\_conlat\_1 X0) X1) X0) \wedge (v7\_conlat\_1 \\ & (k16\_lattice3 (k11\_conlat\_1 X0) X1) X0) \wedge (l2\_conlat\_1 (k16\_lattice3 \\ & (k11\_conlat\_1 X0) X1) X0))) \wedge ((\neg v5\_conlat\_1 (k15\_lattice3 (k11\_conlat\_1 \\ & X0) X1) X0) \wedge (v7\_conlat\_1 (k15\_lattice3 (k11\_conlat\_1 X0) X1) \\ & X0) \wedge (l2\_conlat\_1 (k15\_lattice3 (k11\_conlat\_1 X0) X1) X0)))))) \end{aligned}$$