

t38_o_ring_1
(TMJgXrtNGxJd6cdT2jz2wXyegYWCAN5uaf3)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v13_o_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_o_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_o_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_o_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v7_o_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v9_o_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v11_o_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (((v13_o_ring_1 X1 X0) \wedge (v13_o_ring_1 X2 X0)) \Rightarrow \\ & (v13_o_ring_1 (k1_algstr_0 X0 X1 X2) X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (((v13_o_ring_1 X1 X0) \wedge (v5_o_ring_1 X2 X0)) \Rightarrow \\ & (v13_o_ring_1 (k1_algstr_0 X0 X1 X2) X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (((v13_o_ring_1 X1 X0) \wedge (v9_o_ring_1 X2 X0)) \Rightarrow \\ & (v13_o_ring_1 (k1_algstr_0 X0 X1 X2) X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (((v13_o_ring_1 X1 X0) \wedge (v11_o_ring_1 X2 X0)) \Rightarrow \\ & (v13_o_ring_1 (k1_algstr_0 X0 X1 X2) X0)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (((v13_o_ring_1 X1 X0) \wedge (v7_o_ring_1 X2 X0)) \Rightarrow \\ & (v13_o_ring_1 (k1_algstr_0 X0 X1 X2) X0)))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (((v13_o_ring_1 X1 X0) \wedge (v3_o_ring_1 X2 X0)) \Rightarrow \\ & (v13_o_ring_1 (k1_algstr_0 X0 X1 X2) X0)))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow ((v1_o_ring_1 X1 X0) \Rightarrow (v3_o_ring_1 \\ & X1 X0))) \end{aligned} \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ & (u1_struct_0 X0)) \Rightarrow (((\neg(\neg(v13_o_ring_1 X1 X0) \wedge (v1_o_ring_1 X2 \\ & X0)) \wedge (\neg(v13_o_ring_1 X1 X0) \wedge (v3_o_ring_1 X2 X0)) \wedge (\neg(v13_o_ring_1 \\ & X1 X0) \wedge (v5_o_ring_1 X2 X0)) \wedge (\neg(v13_o_ring_1 X1 X0) \wedge (v7_o_ring_1 \\ & X2 X0)) \wedge (\neg(v13_o_ring_1 X1 X0) \wedge (v9_o_ring_1 X2 X0)) \wedge (\neg(v13_o_ring_1 \\ & X1 X0) \wedge (v11_o_ring_1 X2 X0)) \wedge (\neg(v13_o_ring_1 X1 X0) \wedge (v13_o_ring_1 \\ & X2 X0)))))) \Rightarrow (v13_o_ring_1 (k1_algstr_0 X0 X1 X2) X0)))) \end{aligned}$$