

l34_o_ring_1

(TMZjzp7jCpmkS9rZdozUqwmUdSpJowxasTX)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v2_o_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v10_o_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_o_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v9_o_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $np_1 : \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow ((v1_o_ring_1 X1 X0) \Rightarrow (v9_o_ring_1 \\ & X1 X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m2_finseq_1 X1 X0) \Rightarrow ((v1_funct_1 X1) \wedge (\\ & (v1_finseq_1 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers \\ & X0)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((v1_relat_1 X1) \wedge ((v5_relat_1 \\ & X1 X0) \wedge (v1_funct_1 X1))) \Rightarrow (m1_subset_1 (k7_partfun1 X0 X1 X2) X0) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m2_finseq_1 X1 (u1_struct_0 X0)) \Rightarrow ((v2_oring_1 X1 X0) \Leftrightarrow ((k3_finseq_1 \\ & X1 \neq k6_numbers) \wedge ((v1_oring_1 (k7_partfun1 (u1_struct_0 X0) \\ & X1 np_1) X0) \wedge (\forall X2.(v7_ordinal1 X2) \Rightarrow (\neg(X2 \neq k6_numbers) \wedge \\ & ((\neg r1_xreal_0 (k3_finseq_1 X1) X2) \wedge (\forall X3.(m1_subset_1 \\ & X3 (u1_struct_0 X0)) \Rightarrow (\neg(v1_oring_1 X3 X0) \wedge (k7_partfun1 (u1_struct_0 \\ & X0) X1 (k1_nat_1 X2 np_1) = k1_algstr_0 X0 (k7_partfun1 (u1_struct_0 \\ & X0) X1 X2) X3)))))))))) \\ & \hspace{15em} (4) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m2_finseq_1 X1 (u1_struct_0 X0)) \Rightarrow ((v10_oring_1 X1 X0) \Leftrightarrow ((k3_finseq_1 \\ & X1 \neq k6_numbers) \wedge ((v9_oring_1 (k7_partfun1 (u1_struct_0 X0) \\ & X1 np_1) X0) \wedge (\forall X2.(v7_ordinal1 X2) \Rightarrow (\neg(X2 \neq k6_numbers) \wedge \\ & ((\neg r1_xreal_0 (k3_finseq_1 X1) X2) \wedge (\forall X3.(m1_subset_1 \\ & X3 (u1_struct_0 X0)) \Rightarrow (\neg(v9_oring_1 X3 X0) \wedge (k7_partfun1 (u1_struct_0 \\ & X0) X1 (k1_nat_1 X2 np_1) = k1_algstr_0 X0 (k7_partfun1 (u1_struct_0 \\ & X0) X1 X2) X3)))))))))) \\ & \hspace{15em} (5) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1))) \Rightarrow ((v4_relat_1 X2 X0) \wedge (v5_relat_1 X2 X1)) \hspace{5em} (6) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \hspace{5em} (7) \end{aligned}$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m2_finseq_1 X1 (u1_struct_0 X0)) \Rightarrow ((v2_oring_1 X1 X0) \Rightarrow (v10_oring_1 \\ & X1 X0))) \end{aligned}$$