

t21_ring_1

(TMG9vzCjMzT6mdfQZKe51inRtVLU1d8Fc7z)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_ideal_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_ideal_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_ideal_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v4_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_ring_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v33_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_ring_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v3_group_1 \\ & X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge \\ & ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow \\ & (\forall X1. ((\neg v1_xboole_0 X1) \wedge ((v1_ideal_1 X1 X0) \wedge ((v2_ideal_1 \\ X1 X0) \wedge ((v3_ideal_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ X0)))))))))) \Rightarrow ((v33_algstr_0 (k2_ring_1 X0 X1)) \Rightarrow (v3_ring_1 X1 X0)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v3_group_1 \\ X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge \\ ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow \\ & (\forall X1. ((\neg v1_xboole_0 X1) \wedge ((v1_ideal_1 X1 X0) \wedge ((v2_ideal_1 \\ X1 X0) \wedge ((v3_ideal_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\ X0)))))))))) \Rightarrow (((v5_group_1 X0) \wedge (v3_ring_1 X1 X0)) \Rightarrow (v33_algstr_0 \\ (k2_ring_1 X0 X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v3_group_1 \\
& X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge \\
& ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))) \Rightarrow \\
& (\forall X1.((\neg v1_xboole_0 X1) \wedge ((v1_ideal_1 X1 X0) \wedge ((v2_ideal_1 \\
& X1 X0) \wedge ((v3_ideal_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\
& X0))))))) \Rightarrow ((v1_subset_1 X1 (u1_struct_0 X0)) \Leftrightarrow (\neg v6_struct_0 \\
& (k2_ring_1 X0 X1))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge \\
& ((v3_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))) \wedge \\
& ((\neg v1_xboole_0 X1) \wedge ((v1_ideal_1 X1 X0) \wedge ((v2_ideal_1 X1 X0) \wedge (\\
& (v3_ideal_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\
& X0))))))) \Rightarrow ((v13_algstr_0 (k2_ring_1 X0 X1) \wedge ((v36_algstr_0 \\
& (k2_ring_1 X0 X1) \wedge ((v3_group_1 (k2_ring_1 X0 X1) \wedge ((v4_vectsp_1 \\
& (k2_ring_1 X0 X1) \wedge ((v5_vectsp_1 (k2_ring_1 X0 X1) \wedge ((v2_rlvect_1 \\
& (k2_ring_1 X0 X1) \wedge ((v3_rlvect_1 (k2_ring_1 X0 X1) \wedge (v4_rlvect_1 \\
& (k2_ring_1 X0 X1))))))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge \\
& ((v3_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))) \wedge \\
& ((\neg v1_xboole_0 X1) \wedge ((v1_ideal_1 X1 X0) \wedge ((v2_ideal_1 X1 X0) \wedge (\\
& (v3_ideal_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\
& X0))))))) \Rightarrow ((\neg v2_struct_0 (k2_ring_1 X0 X1) \wedge (v36_algstr_0 \\
& (k2_ring_1 X0 X1)))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge \\
& ((v3_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))) \wedge \\
& ((\neg v1_xboole_0 X1) \wedge ((v1_ideal_1 X1 X0) \wedge ((v2_ideal_1 X1 X0) \wedge (\\
& (v3_ideal_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 \\
& X0))))))) \Rightarrow ((v36_algstr_0 (k2_ring_1 X0 X1) \wedge (l6_algstr_0 (\\
& k2_ring_1 X0 X1)))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\
& (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v1_subset_1 \\
& X1 (u1_struct_0 X0)) \wedge (v3_ring_1 X1 X0)) \Rightarrow (v4_ring_1 X1 X0))
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v4_ring_1 \\ & X1 X0) \Rightarrow ((v1_subset_1 X1 (u1_struct_0 X0)) \wedge (v3_ring_1 X1 X0)))) \end{aligned} \quad (8)$$

Theorem 1

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v3_group_1 \\ & X0) \wedge ((v5_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (\\ & (v2_rlvect_1 X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 \\ & X0)))))))))) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge ((v1_ideal_1 X1 \\ & X0) \wedge ((v2_ideal_1 X1 X0) \wedge ((v3_ideal_1 X1 X0) \wedge (m1_subset_1 X1 (\\ & k1_zfmisc_1 (u1_struct_0 X0)))))) \Rightarrow ((v4_ring_1 X1 X0) \Leftrightarrow ((\neg v2_struct_0 \\ & (k2_ring_1 X0 X1)) \wedge ((\neg v6_struct_0 (k2_ring_1 X0 X1)) \wedge ((v13_algstr_0 \\ & (k2_ring_1 X0 X1)) \wedge ((v33_algstr_0 (k2_ring_1 X0 X1)) \wedge ((v3_group_1 \\ & (k2_ring_1 X0 X1)) \wedge ((v4_vectsp_1 (k2_ring_1 X0 X1)) \wedge ((v5_vectsp_1 \\ & (k2_ring_1 X0 X1)) \wedge ((v2_rlvect_1 (k2_ring_1 X0 X1)) \wedge ((v3_rlvect_1 \\ & (k2_ring_1 X0 X1)) \wedge ((v4_rlvect_1 (k2_ring_1 X0 X1)) \wedge (l6_algstr_0 \\ & (k2_ring_1 X0 X1)))))))))))))) \end{aligned}$$