

t10_mod_2

(TMMPS4Qdzer4iUQVEQS46HEeWUVgfaNvyLf)

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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 $v4_vectsp_1 : \iota \Rightarrow o$ 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 $v2_mod_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_mod_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_mod_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v8_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v9_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v10_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v11_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_vectsp_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_mod_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $g1_mod_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v13_vectsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_mod_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_mod_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_mod_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u3_mod_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v3_group_1 \\
 & X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge \\
 & ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))))) \Rightarrow \\
 & (\forall X1.((v3_mod_2 X1 X0) \wedge (l1_mod_2 X1 X0)) \Rightarrow (\exists X2.(\\
 & (\neg v2_struct_0 X2) \wedge ((v13_algstr_0 X2) \wedge ((v8_vectsp_1 X2 X0) \wedge (\\
 & (v9_vectsp_1 X2 X0) \wedge ((v10_vectsp_1 X2 X0) \wedge ((v11_vectsp_1 X2 X0) \wedge \\
 & ((v2_rlvect_1 X2) \wedge ((v3_rlvect_1 X2) \wedge ((v4_rlvect_1 X2) \wedge (l1_vectsp_1 \\
 & X2 X0)))))))))) \wedge (\exists X3.((\neg v2_struct_0 X3) \wedge ((v13_algstr_0 \\
 & X3) \wedge ((v8_vectsp_1 X3 X0) \wedge ((v9_vectsp_1 X3 X0) \wedge ((v10_vectsp_1 \\
 & X3 X0) \wedge ((v11_vectsp_1 X3 X0) \wedge ((v2_rlvect_1 X3) \wedge ((v3_rlvect_1 \\
 & X3) \wedge ((v4_rlvect_1 X3) \wedge (l1_vectsp_1 X3 X0)))))))))) \wedge (m1_mod_2 \\
 & X1 X0 X2 X3)))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v3_group_1 \\
& X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge \\
& ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))) \Rightarrow \\
& (\forall X1.((\neg v2_struct_0 X1) \wedge ((v13_algstr_0 X1) \wedge ((v8_vectsp_1 \\
& X1 X0) \wedge ((v9_vectsp_1 X1 X0) \wedge ((v10_vectsp_1 X1 X0) \wedge ((v11_vectsp_1 \\
& X1 X0) \wedge ((v2_rlvect_1 X1) \wedge ((v3_rlvect_1 X1) \wedge ((v4_rlvect_1 X1) \wedge \\
& (l1_vectsp_1 X1 X0)))))))) \Rightarrow (\forall X2.((\neg v2_struct_0 X2) \wedge \\
& ((v13_algstr_0 X2) \wedge ((v8_vectsp_1 X2 X0) \wedge ((v9_vectsp_1 X2 X0) \wedge \\
& ((v10_vectsp_1 X2 X0) \wedge ((v11_vectsp_1 X2 X0) \wedge ((v2_rlvect_1 X2) \wedge \\
& ((v3_rlvect_1 X2) \wedge ((v4_rlvect_1 X2) \wedge (l1_vectsp_1 X2 X0)))))))) \Rightarrow \\
& (\forall X3.(m1_mod_2 X3 X0 X1 X2) \Rightarrow (\exists X4.((v1_funct_1 X4) \wedge \\
& ((v1_funct_2 X4 (u1_struct_0 X1) (u1_struct_0 X2)) \wedge (m1_subset_1 \\
& X4 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X1) (u1_struct_0 X2)))))) \wedge \\
& ((g1_mod_2 X0 (u1_mod_2 X0 X3) (u2_mod_2 X0 X3) (u3_mod_2 X0 X3) = \\
& g1_mod_2 X0 X1 X2 X4) \wedge ((v13_vectsp_1 X4 X1 X2) \wedge (v1_mod_2 X4 X0 X1 \\
& X2))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge \\
& ((v3_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 \\
& X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))) \wedge \\
& (l1_mod_2 X1 X0)) \Rightarrow ((v2_mod_2 X1 X0) \Rightarrow (X1 = g1_mod_2 X0 (u1_mod_2 \\
& X0 X1) (u2_mod_2 X0 X1) (u3_mod_2 X0 X1)))
\end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v3_group_1 \\
& X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge \\
& ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge (l6_algstr_0 X0)))))))) \Rightarrow \\
& (\forall X1.((v2_mod_2 X1 X0) \wedge ((v3_mod_2 X1 X0) \wedge (l1_mod_2 X1 X0))) \Rightarrow \\
& (\exists X2.((\neg v2_struct_0 X2) \wedge ((v13_algstr_0 X2) \wedge ((v8_vectsp_1 \\
& X2 X0) \wedge ((v9_vectsp_1 X2 X0) \wedge ((v10_vectsp_1 X2 X0) \wedge ((v11_vectsp_1 \\
& X2 X0) \wedge ((v2_rlvect_1 X2) \wedge ((v3_rlvect_1 X2) \wedge ((v4_rlvect_1 X2) \wedge \\
& (l1_vectsp_1 X2 X0)))))))) \wedge (\exists X3.((\neg v2_struct_0 X3) \wedge \\
& ((v13_algstr_0 X3) \wedge ((v8_vectsp_1 X3 X0) \wedge ((v9_vectsp_1 X3 X0) \wedge \\
& ((v10_vectsp_1 X3 X0) \wedge ((v11_vectsp_1 X3 X0) \wedge ((v2_rlvect_1 X3) \wedge \\
& ((v3_rlvect_1 X3) \wedge ((v4_rlvect_1 X3) \wedge (l1_vectsp_1 X3 X0)))))))) \wedge \\
& (\exists X4.((v1_funct_1 X4) \wedge ((v1_funct_2 X4 (u1_struct_0 X2) \\
& (u1_struct_0 X3)) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 \\
& (u1_struct_0 X2) (u1_struct_0 X3)))))) \wedge ((v2_mod_2 X1 X0) \wedge (m1_mod_2 \\
& X1 X0 X2 X3)) \wedge ((X1 = g1_mod_2 X0 X2 X3 X4) \wedge ((v13_vectsp_1 X4 X2 X3) \wedge \\
& (v1_mod_2 X4 X0 X2 X3))))))
\end{aligned}$$