

t83_fvaluat1

(TMbULx5mhqFpfR7TzxeZcgNDTw9D2S9csEb)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ 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 $v1_realset2 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_fvaluat1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_fvaluat1 : \iota \Rightarrow o$ be given. Let $k7_fvaluat1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_fvaluat1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_fvaluat1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $k2_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_algstr_0 : \iota \Rightarrow \iota$ be given. Let $u2_struct_0 : \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $u3_struct_0 : \iota \Rightarrow \iota$ be given. Let $k5_struct_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ & X0) \wedge ((v3_group_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge \\ & (v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v1_realset2 X0) \wedge (l6_algstr_0 \\ & X0)))))))))) \Rightarrow (\forall X1. (m1_fvaluat1 X1 X0) \Rightarrow ((v3_fvaluat1 \\ & X0) \Rightarrow (k6_fvaluat1 X0 (k5_fvaluat1 X0 X1) = k6_fvaluat1 X0 X1))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge \\ & ((v13_algstr_0 X0) \wedge ((v3_group_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v1_realset2 X0) \wedge \\ & (l6_algstr_0 X0)))))))))) \wedge (m1_fvaluat1 X1 X0)) \Rightarrow ((\neg v2_struct_0 \\ & (k7_fvaluat1 X0 X1)) \wedge ((\neg v6_struct_0 (k7_fvaluat1 X0 X1)) \wedge ((v13_algstr_0 \\ & (k7_fvaluat1 X0 X1)) \wedge ((v36_algstr_0 (k7_fvaluat1 X0 X1)) \wedge ((v3_group_1 \\ & (k7_fvaluat1 X0 X1)) \wedge ((v5_group_1 (k7_fvaluat1 X0 X1)) \wedge ((v4_vectsp_1 \\ & (k7_fvaluat1 X0 X1)) \wedge ((v5_vectsp_1 (k7_fvaluat1 X0 X1)) \wedge ((v2_rlvect_1 \\ & (k7_fvaluat1 X0 X1)) \wedge ((v3_rlvect_1 (k7_fvaluat1 X0 X1)) \wedge ((v4_rlvect_1 \\ & (k7_fvaluat1 X0 X1)) \wedge (l6_algstr_0 (k7_fvaluat1 X0 X1)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (\neg v6_struct_0 X0) \wedge \\ & ((v13_algstr_0 X0) \wedge (v3_group_1 X0) \wedge (v5_vectsp_1 X0) \wedge (v2_rlvect_1 \\ & X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v1_realset2 X0) \wedge \\ & (l6_algstr_0 X0)))))) \wedge (m1_fvaluat1 X1 X0) \Rightarrow (m1_fvaluat1 \\ & (k5_fvaluat1 X0 X1) X0) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (\neg v6_struct_0 X0) \wedge (v13_algstr_0 \\ & X0) \wedge (v3_group_1 X0) \wedge (v5_vectsp_1 X0) \wedge (v2_rlvect_1 X0) \wedge (\\ & v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v1_realset2 X0) \wedge (l6_algstr_0 \\ & X0)))))) \Rightarrow (\forall X1. (m1_fvaluat1 X1 X0) \Rightarrow (v3_fvaluat1 \\ & X0) \Rightarrow (\forall X2. ((\neg v2_struct_0 X2) \wedge (\neg v6_struct_0 X2) \wedge (v13_algstr_0 \\ & X2) \wedge (v36_algstr_0 X2) \wedge (v3_group_1 X2) \wedge (v5_group_1 X2) \wedge (\\ & v4_vectsp_1 X2) \wedge (v5_vectsp_1 X2) \wedge (v2_rlvect_1 X2) \wedge (v3_rlvect_1 \\ & X2) \wedge (v4_rlvect_1 X2) \wedge (l6_algstr_0 X2)))))) \Rightarrow ((X2 = k7_fvaluat1 \\ & X0 X1) \Leftrightarrow ((u1_struct_0 X2 = k6_fvaluat1 X0 X1) \wedge (u1_algstr_0 X2 = \\ & k2_partfun1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) (\\ & u1_struct_0 X0) (u1_algstr_0 X0) (k2_zfmisc_1 (k6_fvaluat1 X0 \\ & X1) (k6_fvaluat1 X0 X1))) \wedge (u2_algstr_0 X2 = k2_partfun1 (k2_zfmisc_1 \\ & (u1_struct_0 X0) (u1_struct_0 X0)) (u1_struct_0 X0) (u2_algstr_0 \\ & X0) (k2_zfmisc_1 (k6_fvaluat1 X0 X1) (k6_fvaluat1 X0 X1))) \wedge (u2_struct_0 \\ & X2 = k4_struct_0 X0) \wedge (u3_struct_0 X2 = k5_struct_0 X0)))))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (\neg v6_struct_0 X0) \wedge (v13_algstr_0 \\ & X0) \wedge (v3_group_1 X0) \wedge (v5_vectsp_1 X0) \wedge (v2_rlvect_1 X0) \wedge (\\ & v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v1_realset2 X0) \wedge (l6_algstr_0 \\ & X0)))))) \Rightarrow (\forall X1. (m1_fvaluat1 X1 X0) \Rightarrow (v3_fvaluat1 \\ & X0) \Rightarrow (k7_fvaluat1 X0 (k5_fvaluat1 X0 X1) = k7_fvaluat1 X0 X1)) \end{aligned}$$