

t82_fvaluat1

(TMazH2mEDgLYbMrk76Jc46oBhcqhSJGWK2e)

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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 $k6_fvaluat1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_fvaluat1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $r1_tarSKI : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_fvaluat1 X1 X0) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 \\ & X0)) \Rightarrow ((X2 \in k6_fvaluat1 X0 X1) \Leftrightarrow (r1_xxreal_0 k6_numbers (k3_funct_2 \\ & (u1_struct_0 X0) k7_numbers X1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge ((\neg v6_struct_0 X0) \wedge ((v13_algstr_0 \\ & X0) \wedge ((v3_group_1 X0) \wedge ((v5_vectsp_1 X0) \wedge ((v2_rlvect_1 X0) \wedge (\\ & (v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v1_realset2 X0) \wedge (l6_algstr_0 \\ & X0)))))))))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\ & (\forall X2.(m1_fvaluat1 X2 X0) \Rightarrow ((v3_fvaluat1 X0) \Rightarrow ((r1_xxreal_0 \\ & k6_numbers (k3_funct_2 (u1_struct_0 X0) k7_numbers X2 X1)) \Leftrightarrow (r1_xxreal_0 \\ & k6_numbers (k3_funct_2 (u1_struct_0 X0) k7_numbers (k5_fvaluat1 \\ & X0 X2) X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (\forall X2. (X2 \in X0) \Leftrightarrow (X2 \in X1)) \Rightarrow (X0 = X1) \quad (3)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2_struct_0 X0) \wedge (\neg v6_struct_0 X0) \wedge \\ & ((v13_algstr_0 X0) \wedge (v3_group_1 X0) \wedge (v5_vectsp_1 X0) \wedge (v2_rlvect_1 \\ & X0) \wedge (v3_rlvect_1 X0) \wedge (v4_rlvect_1 X0) \wedge (v1_realset2 X0) \wedge \\ & (l6_algstr_0 X0)))))) \wedge (m1_fvaluat1 X1 X0) \Rightarrow (m1_fvaluat1 \\ & (k5_fvaluat1 X0 X1) X0) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Leftrightarrow (\forall X2. (X2 \in X0) \Rightarrow (X2 \in X1)) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & (m1_fvaluat1 X1 X0) \Rightarrow (k6_fvaluat1 X0 X1 = \text{ReplSep} (\text{toset} (\lambda X2 : \\ & \iota.m1_subset_1 X2 (u1_struct_0 X0))) (\lambda X2 : \iota.r1_xxreal_0 \\ & k6_numbers (k3_funct_2 (u1_struct_0 X0) k7_numbers X1 X2)) (\lambda X2 : \\ & \iota.X2))) \end{aligned} \quad (7)$$

Theorem 1

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