

t55_quofield
(TMMS2rE3h9KLbp1TQbiSp1183u3bbKongpz)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $v1_quofield : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_struct_0 : \iota \Rightarrow \iota$ be given. Let $k6_partfun1 : \iota \Rightarrow \iota$ be given. Let $k4_relat_1 : \iota \Rightarrow \iota$ be given. Let $v1_ringcat1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $v7_mod_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_algstr_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v13_vectsp_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_group_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v6_group_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. k6_partfun1 X0 = k4_relat_1 X0 \quad (1)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (v1_ringcat1 (k3_struct_0 X0) X0 X0) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow ((v1_funct_1 (k3_struct_0 X0)) \wedge ((v1_funct_2 (k3_struct_0 X0) (u1_struct_0 X0) (u1_struct_0 X0)) \wedge (v7_mod_4 (k3_struct_0 X0) X0 X0))) \quad (3)$$

Assume the following.

$$\forall X0. (l6_algstr_0 X0) \Rightarrow ((l2_algstr_0 X0) \wedge (l5_algstr_0 X0)) \quad (4)$$

Assume the following.

$$\forall X0. (l2_algstr_0 X0) \Rightarrow ((l2_struct_0 X0) \wedge (l1_algstr_0 X0)) \quad (5)$$

Assume the following.

$$\forall X0. (l1_algstr_0 X0) \Rightarrow (l1_struct_0 X0) \quad (6)$$

Assume the following.

$$\forall X0.(v1_partfun1 (k6_partfun1 X0) X0) \wedge (m1_subset_1 (k6_partfun1 X0) (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))) \quad (7)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow (k3_struct_0 X0 = k6_partfun1 (u1_struct_0 X0)) \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge (l6_algstr_0 X1)) \Rightarrow (\forall X2.((v1_funct_1 \\ & X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))))) \Rightarrow \\ & ((v1_quofield X2 X0 X1) \Leftrightarrow ((v13_vectsp_1 X2 X0 X1) \wedge ((v1_group_6 \\ & X2 X0 X1) \wedge (v6_group_1 X2 X0 X1)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \wedge \\ & ((\neg v2_struct_0 X1) \wedge (l6_algstr_0 X1))) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X1)))) \Rightarrow \\ & (((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (u1_struct_0 X0) (u1_struct_0 \\ & X1)) \wedge (v1_ringcat1 X2 X0 X1))) \Rightarrow ((v1_funct_1 X2) \wedge ((v1_funct_2 \\ & X2 (u1_struct_0 X0) (u1_struct_0 X1)) \wedge ((v6_group_1 X2 X0 X1) \wedge (\\ & (v1_group_6 X2 X0 X1) \wedge (v13_vectsp_1 X2 X0 X1)))))) \end{aligned} \quad (10)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l6_algstr_0 X0)) \Rightarrow (v1_quofield (k3_struct_0 X0) X0 X0)$$