

t85_group_2
(TMV27eaqtc7NiCshA8712Xhzujj69GygyUH)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_group_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $l3_algstr_0 : \iota \Rightarrow o$ be given. Let $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_group_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10_group_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_group_2 : \iota \Rightarrow \iota$ be given. Let $v15_algstr_0 : \iota \Rightarrow o$ be given. Let $g3_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u2_algstr_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow (m1_group_2 (k6_group_2 X0) X1)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge (((v15_algstr_0 X1) \wedge (m1_group_2 X1 X0)) \wedge ((v15_algstr_0 X2) \wedge (m1_group_2 X2 X0)))) \Rightarrow ((r1_group_2 X0 X1 X2) \Leftrightarrow (X1 = X2)) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow (\forall X2.(m1_group_2 X2 X0) \Rightarrow ((m1_group_2 X2 X1) \Leftrightarrow (g3_algstr_0 (u1_struct_0 (k10_group_2 X0 X2 X1)) (u2_algstr_0 (k10_group_2 X0 X2 X1)) = g3_algstr_0 (u1_struct_0 X2) (u2_algstr_0 X2))))) \quad (3)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge (l3_algstr_0 X0))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge (l3_algstr_0 X1)))) \quad (4)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \Rightarrow ((v15_algstr_0 (k6_group_2 X0)) \wedge (m1_group_2 (k6_group_2 X0) X0)) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge ((m1_group_2 X1 X0) \wedge (m1_group_2 X2 X0))) \Rightarrow ((v15_algstr_0 (k10_group_2 X0 X1 X2)) \wedge (m1_group_2 (k10_group_2 X0 X1 X2) X0)) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge ((m1_group_2 X1 X0) \wedge (m1_group_2 X2 X0))) \Rightarrow (k10_group_2 X0 X1 X2 = k10_group_2 X0 X2 X1) \quad (7)$$

Assume the following.

$$\forall X0. (l3_algstr_0 X0) \Rightarrow ((v15_algstr_0 X0) \Rightarrow (X0 = g3_algstr_0 (u1_struct_0 X0) (u2_algstr_0 X0))) \quad (8)$$

Theorem 1

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1. (m1_group_2 X1 X0) \Rightarrow ((r1_group_2 X0 (k10_group_2 X0 (k6_group_2 X0) X1) (k6_group_2 X0)) \wedge (r1_group_2 X0 (k10_group_2 X0 X1 (k6_group_2 X0)) (k6_group_2 X0))))$$