

t16_group_1

(TMN3UcGqZ8tduTFCvLxuwGU33vMcSYrwpuv)

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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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_int_2 : \iota \Rightarrow o$ be given. Let $v2_group_10 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_group_2 : \iota \Rightarrow \iota$ be given. Let $m1_group_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v8_struct_0 : \iota \Rightarrow o$ be given. Let $v15_algstr_0 : \iota \Rightarrow o$ be given. Let $r3_group_10 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_nat.d : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k18_group_2 : \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow (k6_group_2 X1 = k6_group_2 X0)) \quad (2)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v8_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0))))) \Rightarrow (\forall X1.((v7_ordinal1 X1) \wedge (v1_int_2 X1)) \Rightarrow (\exists X2.((v15_algstr_0 X2) \wedge (m1_group_2 X2 X0)) \wedge (r3_group_10 X1 X0 X2))) \quad (3)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \Rightarrow ((v8_struct_0 (k6_group_2 X0)) \wedge (v15_algstr_0 (k6_group_2 X0))) \quad (4)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge (l3_algstr_0 X0))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow ((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge (l3_algstr_0 X1)))) \quad (5)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \Rightarrow ((v15_algstr_0 (k6_group_2 X0)) \wedge (m1_group_2 (k6_group_2 X0) X0)) \quad (6)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.((\neg v2_struct_0 X1) \wedge ((v2_group_1 X1) \wedge ((v3_group_1 X1) \wedge (l3_algstr_0 X1)))) \Rightarrow (\forall X2.(m1_group_2 X2 X1) \Rightarrow ((r3_group_10 X0 X1 X2) \Leftrightarrow ((v2_group_10 X2 X0) \wedge (\neg r1_nat_d X0 (k18_group_2 X1 X2))))) \quad (7)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v8_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0))))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow (v8_struct_0 X1)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \wedge ((\neg v2_struct_0 X1) \wedge ((v8_struct_0 X1) \wedge ((v2_group_1 X1) \wedge ((v3_group_1 X1) \wedge ((v2_group_10 X1 X0) \wedge (l3_algstr_0 X1))))))) \Rightarrow (\forall X2.(m1_group_2 X2 X1) \Rightarrow (v2_group_10 X2 X0)) \quad (9)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_group_2 X1 X0) \Rightarrow (v3_group_1 X1)) \quad (10)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.((v7_ordinal1 X1) \wedge (v1_int_2 X1)) \Rightarrow (v2_group_10 (k6_group_2 X0) X1))$$