

t20_ec_pf_1

(TMdF2bxcyADnD8RmXG13A2q9F8CXRH1zqik)

October 27, 2020

Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_int_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k9_int_3 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k8_group_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v33_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $v5_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v13_algstr_0 X0) \wedge ((v33_algstr_0 \\ & X0) \wedge ((v3_rlvect_1 X0) \wedge ((v4_rlvect_1 X0) \wedge ((v3_group_1 X0) \wedge \\ & (v5_group_1 X0) \wedge ((v4_vectsp_1 X0) \wedge ((v5_vectsp_1 X0) \wedge (l6_algstr_0 \\ & X0)))))))))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow \\ & (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((k8_group_1 X0 \\ & X1 X2 = k4_struct_0 X0) \Leftrightarrow ((X1 = k4_struct_0 X0) \vee (X2 = k4_struct_0 \\ & X0)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. ((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \Rightarrow (k6_numbers = k4_struct_0 (k9_int_3 X0)) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0. ((v7_ordinal1 X0) \wedge (v1_int_2 X0)) \Rightarrow ((\neg v6_struct_0 \\ & (k9_int_3 X0)) \wedge ((v13_algstr_0 (k9_int_3 X0)) \wedge ((v33_algstr_0 \\ & (k9_int_3 X0)) \wedge ((v3_group_1 (k9_int_3 X0)) \wedge ((v5_group_1 (k9_int_3 \\ & X0)) \wedge ((v2_rlvect_1 (k9_int_3 X0)) \wedge ((v3_rlvect_1 (k9_int_3 X0)) \wedge \\ & ((v4_rlvect_1 (k9_int_3 X0)) \wedge ((v4_vectsp_1 (k9_int_3 X0)) \wedge (\\ & v5_vectsp_1 (k9_int_3 X0)))))))))) \end{aligned} \tag{3}$$

Assume the following.

$$\forall X0. ((\neg v1_xboole_0 X0) \wedge (v7_ordinal1 X0)) \Rightarrow ((\neg v2_struct_0 (k9_int_3 X0)) \wedge (v36_algstr_0 (k9_int_3 X0))) \tag{4}$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(l6_algstr_0\ (k9_int_3\ X0)) \quad (5)$$

Assume the following.

$$\forall X0.((v7_ordinal1\ X0)\wedge(v1_int_2\ X0))\Rightarrow((\neg v1_xboole_0\ X0)\wedge((v7_ordinal1\ X0)\wedge(v1_int_2\ X0))) \quad (6)$$

Theorem 1

$$\begin{aligned} \forall X0.((v7_ordinal1\ X0)\wedge(v1_int_2\ X0))\Rightarrow(\forall X1.(m1_subset_1 \\ X1\ (u1_struct_0\ (k9_int_3\ X0)))\Rightarrow(\forall X2.(m1_subset_1\ X2\ (\\ u1_struct_0\ (k9_int_3\ X0)))\Rightarrow(((X1 = k6_numbers)\vee(X2 = k6_numbers))\Leftrightarrow \\ (k8_group_1\ (k9_int_3\ X0)\ X1\ X2 = k6_numbers)))) \end{aligned}$$