

t32_group_5

(TMbS6QUnGz9qq9g73Nq6S5QwEG1vYbDJZca)

October 27, 2020

Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_group_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_group_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xcmplx_0 : \iota \Rightarrow \iota$ be given. Let $k2_group_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_int_1 : \iota \Rightarrow o$ be given. Let $k19_binop_2 : \iota \Rightarrow \iota$ be given. Let $k2_group_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (v1_int_1 X0) \Rightarrow (\forall X1. ((\neg v2_struct_0 X1) \wedge ((v2_group_1 \\ X1) \wedge ((v3_group_1 X1) \wedge (l3_algstr_0 X1)))) \Rightarrow (\forall X2. (m1_subset_1 \\ X2 (u1_struct_0 X1)) \Rightarrow (k5_group_1 X1 (k19_binop_2 X0) X2 = k2_group_1 \\ X1 (k5_group_1 X1 X0 X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\ X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1. (m1_subset_1 X1 (u1_struct_0 \\ X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (\forall X3. \\ (v7_ordinal1 X3) \Rightarrow (k2_group_3 X0 (k5_group_1 X0 X3 X1) X2 = k5_group_1 \\ X0 X3 (k2_group_3 X0 X1 X2)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\
& X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((k2_group_5 \\
& X0 X1 X2 = k6_algstr_0 X0 (k6_algstr_0 X0 (k6_algstr_0 X0 (k2_group_1 \\
& X0 X1) (k2_group_1 X0 X2)) X1) X2) \wedge ((k2_group_5 X0 X1 X2 = k6_algstr_0 \\
& X0 (k6_algstr_0 X0 (k2_group_1 X0 X1) (k6_algstr_0 X0 (k2_group_1 \\
& X0 X2) X1)) X2) \wedge ((k2_group_5 X0 X1 X2 = k6_algstr_0 X0 (k2_group_1 \\
& X0 X1) (k6_algstr_0 X0 (k6_algstr_0 X0 (k2_group_1 X0 X2) X1) X2)) \wedge \\
& ((k2_group_5 X0 X1 X2 = k6_algstr_0 X0 (k2_group_1 X0 X1) (k6_algstr_0 \\
& X0 (k2_group_1 X0 X2) (k6_algstr_0 X0 X1 X2))) \wedge (k2_group_5 X0 X1 \\
& X2 = k6_algstr_0 X0 (k6_algstr_0 X0 (k2_group_1 X0 X1) (k2_group_1 \\
& X0 X2)) (k6_algstr_0 X0 X1 X2)))))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2.(m2_subset_1 \\
& X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1))
\end{aligned} \tag{4}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{5}$$

Assume the following.

$$\forall X0.(v1_int_1 X0) \Rightarrow (k19_binop_2 X0 = k4_xcmplx_0 X0) \tag{6}$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \tag{7}$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \tag{8}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v2_struct_0 X0) \wedge ((v2_group_1 \\
& X0) \wedge ((v3_group_1 X0) \wedge (l3_algstr_0 X0)))) \wedge ((v1_int_1 X1) \wedge (m1_subset_1 \\
& X2 (u1_struct_0 X0)))) \Rightarrow (m1_subset_1 (k5_group_1 X0 X1 X2) (u1_struct_0 \\
& X0))
\end{aligned} \tag{9}$$

Assume the following.

$$\begin{aligned}
& \forall X0. ((\neg v2_struct_0 X0) \wedge ((v2_group_1 X0) \wedge ((v3_group_1 \\
& X0) \wedge (l3_algstr_0 X0)))) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 \\
& X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (k2_group_3 \\
& X0 X1 X2 = k6_algstr_0 X0 (k6_algstr_0 X0 (k2_group_1 X0 X2) X1) X2)))
\end{aligned} \tag{10}$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (11)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_int_1 X0) \quad (12)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (v1_xboole_0 X1)) \quad (13)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge (v2_group_1 X1) \wedge (v3_group_1 X1) \wedge (l3_algstr_0 \\ & X1))) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X1)) \Rightarrow (\forall X3. \\ & (m1_subset_1 X3 (u1_struct_0 X1)) \Rightarrow (k2_group_5 X1 (k5_group_1 \\ & X1 X0 X2) X3 = k6_algstr_0 X1 (k5_group_1 X1 (k4_xcmplx_0 X0) X2) (\\ & k5_group_1 X1 X0 (k2_group_3 X1 X2 X3)))))) \end{aligned}$$