

t5_ospace
(TMZTp6sMHhYXXWxQePbyQVabixkXkXA1wT2)

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Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $k2_ospace : \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $np_2 : \iota$ be given. 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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_0 : \iota$ be given. Let $k7_card_1 : \iota \Rightarrow \iota$ be given. Let $k6_card_1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ 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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $g6_algstr_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ 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 $k7_int_3 : \iota \Rightarrow \iota$ be given. Let $k3_gr_cy_1 : \iota \Rightarrow \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v6_struct_0 : \iota \Rightarrow o$ be given. Let $v13_algstr_0 : \iota \Rightarrow o$ be given. Let $v33_algstr_0 : \iota \Rightarrow o$ be given. Let $v3_group_1 : \iota \Rightarrow o$ 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 $v2_rlvect_1 : \iota \Rightarrow o$ be given. Let $v3_rlvect_1 : \iota \Rightarrow o$ be given. Let $v4_rlvect_1 : \iota \Rightarrow o$ be given. Let $k1_funct_7 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v36_algstr_0 : \iota \Rightarrow o$ be given. Let $u2_struct_0 : \iota \Rightarrow \iota$ be given. Let $k9_int_3 : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_algstr_0 : \iota \Rightarrow \iota$ be given. Let $u2_algstr_0 : \iota \Rightarrow \iota$ be given. Let $u3_struct_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (\forall X1.(v7_ordinal1 X1) \Rightarrow ((X0 \in X1) \Leftrightarrow (\neg r1_xxreal_0 X1 X0))) \quad (2)$$

Assume the following.

$$((v2_xxreal_0 np_2) \wedge (m2_subset_1 np_2 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_2 k5_numbers) \wedge (m1_subset_1 np_2 k1_numbers)) \quad (3)$$

Assume the following.

$$v1_xboole_0 \text{ np_}0 \quad (4)$$

Assume the following.

$$\neg r1_xreal_0 \text{ np_}2 \text{ np_}0 \quad (5)$$

Assume the following.

$$\forall X0.(v7_ordinal1 \ X0) \Rightarrow (k7_card_1 \ X0 = k6_card_1 \ X0) \quad (6)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (7)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.(((v1_funct_1 \\ & X1) \wedge ((v1_funct_2 \ X1 \ (k2_zfmisc_1 \ X0 \ X0) \ X0) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \\ & \ (k2_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X0) \ X0)))) \wedge ((v1_funct_1 \ X2) \wedge \\ & (v1_funct_2 \ X2 \ (k2_zfmisc_1 \ X0 \ X0) \ X0) \wedge (m1_subset_1 \ X2 \ (k1_zfmisc_1 \\ & \ (k2_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X0) \ X0)))) \wedge ((m1_subset_1 \ X3 \ X0) \wedge \\ & \ (m1_subset_1 \ X4 \ X0)))) \Rightarrow (\forall X5.\forall X6.\forall X7.\forall X8. \\ & \forall X9.(g6_algstr_0 \ X0 \ X1 \ X2 \ X3 \ X4 = g6_algstr_0 \ X5 \ X6 \ X7 \ X8 \ X9) \Rightarrow \\ & \ ((X0 = X5) \wedge ((X1 = X6) \wedge ((X2 = X7) \wedge ((X3 = X8) \wedge (X4 = X9)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(l6_algstr_0 \ X0) \Rightarrow ((l2_algstr_0 \ X0) \wedge (l5_algstr_0 \ X0)) \quad (10)$$

Assume the following.

$$\forall X0.(l2_algstr_0 \ X0) \Rightarrow ((l2_struct_0 \ X0) \wedge (l1_algstr_0 \ X0)) \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 \ X0) \Rightarrow ((v1_funct_1 \ (k7_int_3 \ X0)) \wedge ((v1_funct_2 \\ & \ (k7_int_3 \ X0) \ (k2_zfmisc_1 \ (k7_card_1 \ X0) \ (k7_card_1 \ X0)) \ (k7_card_1 \\ & \ X0)) \wedge (m1_subset_1 \ (k7_int_3 \ X0) \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ (k2_zfmisc_1 \\ & \ (k7_card_1 \ X0) \ (k7_card_1 \ X0)) \ (k7_card_1 \ X0)))))) \end{aligned} \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v7_ordinal1 \ X0) \Rightarrow ((v1_funct_1 \ (k3_gr_cy_1 \ X0)) \wedge (\\ & \ (v1_funct_2 \ (k3_gr_cy_1 \ X0) \ (k2_zfmisc_1 \ (k7_card_1 \ X0) \ (k7_card_1 \\ & \ X0)) \ (k7_card_1 \ X0)) \wedge (m1_subset_1 \ (k3_gr_cy_1 \ X0) \ (k1_zfmisc_1 \\ & \ (k2_zfmisc_1 \ (k2_zfmisc_1 \ (k7_card_1 \ X0) \ (k7_card_1 \ X0)) \ (k7_card_1 \\ & \ X0)))))) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned}
& (\neg v2_struct_0 \ k2_bspace) \wedge ((\neg v6_struct_0 \ k2_bspace) \wedge ((v13_algstr_0 \\
& \quad k2_bspace) \wedge ((v33_algstr_0 \ k2_bspace) \wedge ((v3_group_1 \ k2_bspace) \wedge \\
& \quad ((v5_group_1 \ k2_bspace) \wedge ((v4_vectsp_1 \ k2_bspace) \wedge ((v5_vectsp_1 \\
& \quad \quad k2_bspace) \wedge ((v2_rlvect_1 \ k2_bspace) \wedge ((v3_rlvect_1 \ k2_bspace) \wedge \\
& \quad \quad ((v4_rlvect_1 \ k2_bspace) \wedge (l6_algstr_0 \ k2_bspace))))))))))
\end{aligned} \tag{14}$$

Assume the following.

$$\forall X0. \forall X1. m1_subset_1 \ (k1_funct_7 \ X0 \ X1) \ X1 \tag{15}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. (((v1_funct_1 \\
& \quad X1) \wedge ((v1_funct_2 \ X1 \ (k2_zfmisc_1 \ X0 \ X0) \ X0) \wedge (m1_subset_1 \ X1 \ (k1_zfmisc_1 \\
& \quad \quad (k2_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X0) \ X0)))))) \wedge (((v1_funct_1 \ X2) \wedge \\
& \quad (v1_funct_2 \ X2 \ (k2_zfmisc_1 \ X0 \ X0) \ X0) \wedge (m1_subset_1 \ X2 \ (k1_zfmisc_1 \\
& \quad \quad (k2_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X0) \ X0)))))) \wedge ((m1_subset_1 \ X3 \ X0) \wedge \\
& \quad (m1_subset_1 \ X4 \ X0))) \Rightarrow ((v36_algstr_0 \ (g6_algstr_0 \ X0 \ X1 \ X2 \ X3 \\
& \quad \quad X4)) \wedge (l6_algstr_0 \ (g6_algstr_0 \ X0 \ X1 \ X2 \ X3 \ X4)))
\end{aligned} \tag{16}$$

Assume the following.

$$\forall X0. (l2_struct_0 \ X0) \Rightarrow (k4_struct_0 \ X0 = u2_struct_0 \ X0) \tag{17}$$

Assume the following.

$$\forall X0. (v7_ordinal1 \ X0) \Rightarrow (k6_card_1 \ X0 = X0) \tag{18}$$

Assume the following.

$$k2_bspace = k9_int_3 \ np_2 \tag{19}$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (k1_funct_7 \ X0 \ X1 = X0) \tag{20}$$

Assume the following.

$$\begin{aligned}
& \forall X0. (v7_ordinal1 \ X0) \Rightarrow (k9_int_3 \ X0 = g6_algstr_0 \ (k7_card_1 \\
& \quad X0) \ (k3_gr_cy_1 \ X0) \ (k7_int_3 \ X0) \ (k1_funct_7 \ np_1 \ (k7_card_1 \\
& \quad \quad X0)) \ (k1_funct_7 \ k6_numbers \ (k7_card_1 \ X0)))
\end{aligned} \tag{21}$$

Assume the following.

$$\forall X0. (m1_subset_1 \ X0 \ k4_ordinal1) \Rightarrow (v7_ordinal1 \ X0) \tag{22}$$

Assume the following.

$$\forall X0. (v1_xboole_0 \ X0) \Rightarrow (v7_ordinal1 \ X0) \tag{23}$$

Assume the following.

$$\begin{aligned} \forall X0. (&16_algstr_0 X0) \Rightarrow ((v36_algstr_0 X0) \Rightarrow (X0 = g6_algstr_0 \\ &(u1_struct_0 X0) (u1_algstr_0 X0) (u2_algstr_0 X0) (u3_struct_0 \\ &X0) (u2_struct_0 X0))) \end{aligned} \quad (24)$$

Theorem 1 $k4_struct_0 k2_bspace = k1_xboole_0$.