

t6_midsp_3

(TMY9tWGzntwV2B9dpRLM5rbM8xQGzv2An4P)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v2_midsp_1 : \iota \Rightarrow o$ be given. Let $l1_midsp_3 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_2 : \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k2_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_midsp_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $l1_midsp_1 : \iota \Rightarrow o$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg (X0 \in X1) \wedge ((m1_subset_1 X1 (k1_zfmisc_1 X2)) \wedge (v1_xboole_0 X2)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (2)$$

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.

$$((v2_xxreal_0 np_1) \wedge (m2_subset_1 np_1 k1_numbers k5_numbers)) \wedge ((m1_subset_1 np_1 k5_numbers) \wedge (m1_subset_1 np_1 k1_numbers)) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (5)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k5_numbers) \Rightarrow (\forall X2.(\neg v1_xboole_0 X2) \Rightarrow (\forall X3.(m1_subset_1 \\ X3 X2) \Rightarrow (\forall X4.(m2_finseq_2 X4 X2 (k4_finseq_2 X0 X2)) \Rightarrow (\forall X5. \\ (m1_subset_1 X5 k5_numbers) \Rightarrow ((X5 \in k7_subset_1 k5_numbers (k4_finseq_1 \\ X4) (k1_tarski X1)) \Rightarrow (k1_funct_1 (k1_midsp_3 X2 X0 X4 X1 X3) X5 = k1_funct_1 \\ X4 X5))))))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k5_numbers) \Rightarrow (\forall X2.(\neg v1_xboole_0 X2) \Rightarrow (\forall X3.(m1_subset_1 \\ X3 X2) \Rightarrow (\forall X4.(m2_finseq_2 X4 X2 (k4_finseq_2 X0 X2)) \Rightarrow ((X1 \in \\ k2_finseq_1 X0) \Rightarrow (k1_funct_1 (k1_midsp_3 X2 X0 X4 X1 X3) X1 = X3))))))))) \end{aligned} \quad (8)$$

Assume the following.

$$(\neg v1_xboole_0 k4_ordinal1) \wedge (v3_ordinal1 k4_ordinal1) \quad (9)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow (\neg v1_xboole_0 \\ (u1_struct_0 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(l1_midsp_3 \\ X1 X0) \Rightarrow (l1_midsp_1 X1)) \quad (11)$$

Assume the following.

$$\forall X0.(l1_midsp_1 X0) \Rightarrow (l1_struct_0 X0) \quad (12)$$

Assume the following.

$$m1_subset_1 k5_numbers (k1_zfmisc_1 k1_numbers) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_numbers) \wedge (v7_ordinal1 \\ X1)) \Rightarrow (m2_subset_1 (k2_nat_1 X0 X1) k1_numbers k5_numbers) \quad (14)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (15)$$

Theorem 1

$$\begin{aligned} & \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ & X1 k5_numbers) \Rightarrow (\forall X2.((\neg v2_struct_0 X2) \wedge ((v2_midsp_1 \\ & X2) \wedge (l1_midsp_3 X2 (k2_nat_1 X1 np_2)))) \Rightarrow (\forall X3.(m1_subset_1 \\ & X3 (u1_struct_0 X2)) \Rightarrow (\forall X4.(m2_finseq_2 X4 (u1_struct_0 \\ & X2) (k4_finseq_2 (k2_nat_1 X1 np_1) (u1_struct_0 X2))) \Rightarrow ((X0 \in \\ & k2_finseq_1 (k2_nat_1 X1 np_1)) \Rightarrow ((k1_funct_1 (k1_midsp_3 (u1_struct_0 \\ & X2) (k2_nat_1 X1 np_1) X4 X0 X3) X0 = X3) \wedge (\forall X5.(m1_subset_1 \\ & X5 k5_numbers) \Rightarrow ((X5 \in k7_subset_1 k5_numbers (k4_finseq_1 X4) \\ & (k1_tarski X0)) \Rightarrow (k1_funct_1 (k1_midsp_3 (u1_struct_0 X2) (k2_nat_1 \\ & X1 np_1) X4 X0 X3) X5 = k1_funct_1 X4 X5)))))))))) \end{aligned}$$