

t84_fvsum_1
(TMdDPSM3d3YcJssGNqXyjo7q9eBy81Ajazs)

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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 $v3_group_1 : \iota \Rightarrow o$ be given. Let $v5_group_1 : \iota \Rightarrow o$ be given. Let $v4_vectsp_1 : \iota \Rightarrow o$ be given. Let $l6_algstr_0 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_group_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $v1_binop_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_binop_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $v1_setwiseo : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_finsop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xcmplx_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_ordinal1 : \iota$ be given. Let $l3_algstr_0 : \iota \Rightarrow o$ be given. Let $u2_algstr_0 : \iota \Rightarrow \iota$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v1_group_1 : \iota \Rightarrow o$ be given. Let $m1_finseq_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l2_algstr_0 : \iota \Rightarrow o$ be given. Let $l5_algstr_0 : \iota \Rightarrow o$ be given. Let $l4_algstr_0 : \iota \Rightarrow o$ be given. Let $l4_struct_0 : \iota \Rightarrow o$ be given. Let $l3_struct_0 : \iota \Rightarrow o$ be given. Let $k4_finseq_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow \\ & (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 (k2_zfmisc_1 X0 \\ & X0) X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 \\ & X0 X0) X0)))))) \Rightarrow (\forall X3. (v7_ordinal1 X3) \Rightarrow (\forall X4. (v7_ordinal1 \\ & X4) \Rightarrow (((v1_binop_1 X2 X0) \wedge (v2_binop_1 X2 X0)) \Rightarrow (((\neg (r1_xxreal_0 \\ & np_1 X3) \wedge (r1_xxreal_0 np_1 X4)) \wedge (\neg v1_setwiseo X2 X0)) \vee (k1_finsop_1 \\ & X0 (k5_finseq_2 X0 (k3_xcmplx_0 X3 X4) X1) X2 = k1_finsop_1 X0 (k5_finseq_2 \\ & X0 X4 (k1_finsop_1 X0 (k5_finseq_2 X0 X3 X1) X2)) X2)))))) \\ & (1) \end{aligned}$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \quad (2)$$

Assume the following.

$$k5_numbers = k4_ordinal1 \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k5_numbers)\wedge(v7_ordinal1 X1))\Rightarrow(k4_nat_1 X0 X1 = k3_xcmplx_0 X0 X1) \quad (4)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v5_group_1 X0)\wedge(l3_algstr_0 X0)))\Rightarrow((v1_funct_1 (u2_algstr_0 X0))\wedge((v1_funct_2 (u2_algstr_0 X0) (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) (u1_struct_0 X0))\wedge(v1_binop_1 (u2_algstr_0 X0) (u1_struct_0 X0)))) \quad (5)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge(l1_struct_0 X0))\Rightarrow(\neg v1_xboole_0 (u1_struct_0 X0)) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v7_ordinal1 X0)\wedge(v7_ordinal1 X1))\Rightarrow(v7_ordinal1 (k3_xcmplx_0 X0 X1)) \quad (7)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v1_group_1 X0)\wedge(l3_algstr_0 X0)))\Rightarrow((v1_funct_1 (u2_algstr_0 X0))\wedge((v1_funct_2 (u2_algstr_0 X0) (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) (u1_struct_0 X0))\wedge(v1_setwiseo (u2_algstr_0 X0) (u1_struct_0 X0)))) \quad (8)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0)\wedge((v3_group_1 X0)\wedge(l3_algstr_0 X0)))\Rightarrow((v1_funct_1 (u2_algstr_0 X0))\wedge((v1_funct_2 (u2_algstr_0 X0) (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) (u1_struct_0 X0))\wedge(v2_binop_1 (u2_algstr_0 X0) (u1_struct_0 X0)))) \quad (9)$$

Assume the following.

$$\forall X0.(l3_algstr_0 X0)\Rightarrow((v1_funct_1 (u2_algstr_0 X0))\wedge((v1_funct_2 (u2_algstr_0 X0) (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0))\wedge(m1_subset_1 (u2_algstr_0 X0) (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 (u1_struct_0 X0) (u1_struct_0 X0)) (u1_struct_0 X0)))))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(m1_finseq_2 X1 X0)\Rightarrow(\forall X2.(m2_finseq_2 X2 X0 X1)\Rightarrow(m2_finseq_1 X2 X0)) \quad (11)$$

Assume the following.

$$\forall X0.(l6_algstr_0 X0)\Rightarrow((l2_algstr_0 X0)\wedge(l5_algstr_0 X0)) \quad (12)$$

Assume the following.

$$\forall X0.(l5_algstr_0 X0) \Rightarrow ((l4_algstr_0 X0) \wedge (l4_struct_0 X0)) \quad (13)$$

Assume the following.

$$\forall X0.(l4_algstr_0 X0) \Rightarrow ((l3_struct_0 X0) \wedge (l3_algstr_0 X0)) \quad (14)$$

Assume the following.

$$\forall X0.(l3_algstr_0 X0) \Rightarrow (l1_struct_0 X0) \quad (15)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0) \wedge ((v7_ordinal1 \\ X1) \wedge (m1_subset_1 X2 X0))) \Rightarrow (m2_finseq_2 (k5_finseq_2 X0 X1 X2) \\ X0 (k4_finseq_2 X1 X0)) \end{aligned} \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.(v7_ordinal1 X0) \Rightarrow (m1_finseq_2 (k4_finseq_2 \\ X0 X1) X1) \quad (17)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((\neg v2_struct_0 X0) \wedge (l3_algstr_0 X0)) \wedge \\ (m1_finseq_1 X1 (u1_struct_0 X0))) \Rightarrow (m1_subset_1 (k3_group_4 \\ X0 X1) (u1_struct_0 X0)) \end{aligned} \quad (18)$$

Assume the following.

$$\begin{aligned} \forall X0.((\neg v2_struct_0 X0) \wedge (l3_algstr_0 X0)) \Rightarrow (\forall X1. \\ (m2_finseq_1 X1 (u1_struct_0 X0)) \Rightarrow (k3_group_4 X0 X1 = k1_finsop_1 \\ (u1_struct_0 X0) X1 (u2_algstr_0 X0))) \end{aligned} \quad (19)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1) \Rightarrow (v7_ordinal1 X0) \quad (20)$$

Assume the following.

$$\forall X0.(l4_algstr_0 X0) \Rightarrow (((\neg v2_struct_0 X0) \wedge (v4_vectsp_1 \\ X0)) \Rightarrow ((\neg v2_struct_0 X0) \wedge (v1_group_1 X0))) \quad (21)$$

Theorem 1

$$\begin{aligned} \forall X0.(m1_subset_1 X0 k5_numbers) \Rightarrow (\forall X1.(m1_subset_1 \\ X1 k5_numbers) \Rightarrow (\forall X2.((\neg v2_struct_0 X2) \wedge ((v3_group_1 \\ X2) \wedge ((v5_group_1 X2) \wedge ((v4_vectsp_1 X2) \wedge (l6_algstr_0 X2)))))) \Rightarrow \\ (\forall X3.(m1_subset_1 X3 (u1_struct_0 X2)) \Rightarrow (k3_group_4 X2 \\ (k5_finseq_2 (u1_struct_0 X2) (k4_nat_1 X0 X1) X3) = k3_group_4 \\ X2 (k5_finseq_2 (u1_struct_0 X2) X1 (k3_group_4 X2 (k5_finseq_2 \\ (u1_struct_0 X2) X0 X3)))))) \end{aligned}$$