

t6_finsop_1 (TMYZFP- bJS3UzPoPtV8E5oqtPquNPF22EGNw)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v2_binop_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_setwiseo : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k1_finsop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12_finseq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v1_finseq_1 : \iota \Rightarrow o$ be given. Let $k9_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k5_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. (m2_finseq_1 X1 X0) \Rightarrow \\ & \quad (\forall X2. (m2_finseq_1 X2 X0) \Rightarrow (\forall X3. ((v1_funct_1 X3) \wedge \\ & \quad ((v1_funct_2 X3 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\ & \quad (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))) \Rightarrow ((v2_binop_1 X3 X0) \Rightarrow \\ & \quad (((\neg v1_setwiseo X3 X0) \wedge (\neg (r1_xxreal_0 np_1 (k3_finseq_1 X1))) \wedge \\ & \quad (r1_xxreal_0 np_1 (k3_finseq_1 X2)))) \vee (k1_finsop_1 X0 (k8_finseq_1 \\ & \quad X0 X1 X2) X3 = k5_binop_1 X0 X3 (k1_finsop_1 X0 X1 X3) (k1_finsop_1 \\ & \quad X0 X2 X3))))))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X1) \wedge ((v1_funct_1 X1) \wedge (v1_finseq_1 X1))) \Rightarrow ((X1 = k9_finseq_1 X0) \Leftrightarrow ((k3_finseq_1 X1 = np_1) \wedge (k10_xtuple_0 X1 = k1_tarski X0))) \tag{2}$$

Assume the following.

$$r1_xxreal_0 np_1 np_1 \tag{3}$$

Assume the following.

$$\forall X0. k9_finseq_1 X0 = k5_finseq_1 X0 \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow (k12_finseq_1 X0 X1 = k5_finseq_1 X1) \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow \\ (\forall X2.((v1_funct_1 X2)\wedge((v1_funct_2 X2 (k2_zfmisc_1 X0 \\ X0) X0)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 (k2_zfmisc_1 \\ X0 X0) X0))))))\Rightarrow(k1_finsop_1 X0 (k12_finseq_1 X0 X1) X2 = X1))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0)\Rightarrow((v1_funct_1 X1)\wedge((v1_finseq_1 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers X0)))))) \quad (7)$$

Assume the following.

$$\forall X0.(v1_relat_1 (k9_finseq_1 X0))\wedge(v1_funct_1 (k9_finseq_1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(m1_subset_1 X1 X0))\Rightarrow (m2_finseq_1 (k12_finseq_1 X0 X1) X0) \quad (9)$$

Theorem 1

$$\begin{aligned} \forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 X0)\Rightarrow \\ (\forall X2.(m2_finseq_1 X2 X0)\Rightarrow(\forall X3.((v1_funct_1 X3)\wedge \\ ((v1_funct_2 X3 (k2_zfmisc_1 X0 X0) X0)\wedge(m1_subset_1 X3 (k1_zfmisc_1 \\ (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0))))))\Rightarrow((v2_binop_1 X3 X0)\Rightarrow \\ (((\neg v1_setwiseo X3 X0)\wedge(\neg r1_xreal_0 np_1 (k3_finseq_1 X2)))\vee \\ (k1_finsop_1 X0 (k8_finseq_1 X0 (k12_finseq_1 X0 X1) X2) X3 = k5_binop_1 \\ X0 X3 X1 (k1_finsop_1 X0 X2 X3)))))) \end{aligned}$$