

t31_setwop_2

(TMN1pV6fwXWmgJsFbMnSaeCYAodmNzEkUtY)

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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 $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v1_setwiseo : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_finseqop : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_finseqop : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_finsop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_finseqop : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r7_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_binop_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge (\\ (v1_funct_2 X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))))) \Rightarrow (((v1_setwiseo X1 X0) \wedge \\ ((v2_binop_1 X1 X0) \wedge ((v1_binop_1 X1 X0) \wedge (v1_finseqop X1 X0)))) \Rightarrow \\ (r7_binop_1 X0 (k5_finseqop X0 X1) X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge (\\ (v1_funct_2 X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))))) \Rightarrow (((v1_setwiseo X1 X0) \wedge \\ ((v2_binop_1 X1 X0) \wedge (v1_finseqop X1 X0))) \Rightarrow (k3_funct_2 X0 X0 (k5_finseqop \\ X0 X1) (k4_binop_1 X0 X1) = k4_binop_1 X0 X1))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned} \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge (\\ (v1_funct_2 X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))))) \Rightarrow (\forall X2. ((v1_funct_1 \\ X2) \wedge ((v1_funct_2 X2 X0 X0) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ X0 X0)))))) \Rightarrow (\forall X3. (m2_finseq_1 X3 X0) \Rightarrow (((v1_setwiseo X1 \\ X0) \wedge ((k3_funct_2 X0 X0 X2 (k4_binop_1 X0 X1) = k4_binop_1 X0 X1) \wedge \\ (r7_binop_1 X0 X2 X1))) \Rightarrow (k3_funct_2 X0 X0 X2 (k1_finsop_1 X0 X3 X1) = \\ k1_finsop_1 X0 (k4_finseqop X0 X0 X3 X2) X1)))))) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((v1_funct_1 X1) \wedge \\ & (v1_funct_2 X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))))) \Rightarrow ((v1_funct_1 (k5_finseqop \\ & X0 X1)) \wedge ((v1_funct_2 (k5_finseqop X0 X1) X0 X0) \wedge (m1_subset_1 (\\ & k5_finseqop X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))))) \end{aligned} \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge \\ & (v1_funct_2 X1 (k2_zfmisc_1 X0 X0) X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 (k2_zfmisc_1 X0 X0) X0)))))) \Rightarrow (\forall X2. (m2_finseq_1 \\ & X2 X0) \Rightarrow (((v1_binop_1 X1 X0) \wedge ((v2_binop_1 X1 X0) \wedge ((v1_setwiseo \\ & X1 X0) \wedge (v1_finseqop X1 X0)))))) \Rightarrow (k3_funct_2 X0 X0 (k5_finseqop X0 \\ & X1) (k1_finsop_1 X0 X2 X1) = k1_finsop_1 X0 (k4_finseqop X0 X0 X2 (\\ & k5_finseqop X0 X1)) X1)))) \end{aligned}$$