

t5_scm_inst (TMWSM-
bvVjygCk2rBsETSW9e7aRWrrAh4pnb)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_scm_inst : \iota$ be given. Let $k2_scm_inst : \iota$ be given. Let $k7_card_1 : \iota \Rightarrow \iota$ be given. Let $np_9 : \iota$ be given. Let $k3_xtuple_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k2_finseq_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_scm_inst : \iota \Rightarrow \iota$ be given. Let $k5_scm_inst : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k7_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $np_2 : \iota$ be given. Let $k2_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 X0) \Rightarrow \\ & (\forall X2.(m1_subset_1 X2 X0) \Rightarrow ((k7_partfun1 X0 (k2_finseq_4 \\ & X0 X1 X2) np_1 = X1) \wedge (k7_partfun1 X0 (k2_finseq_4 X0 X1 X2) np_2 = \\ & X2)))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k2_xtuple_0 (k3_xtuple_0 X0 X1 X2) = X2 \tag{2}$$

Assume the following.

$$\neg v1_xboole_0 k2_scm_inst \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X0) \wedge ((m1_subset_1 \\ & X1 X0) \wedge (m1_subset_1 X2 X0))) \Rightarrow (m2_finseq_1 (k2_finseq_4 X0 X1 X2) \\ & X0) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k3_scm_inst) \Rightarrow ((\exists X1.(m1_subset_1 \\
& X1 k2_scm_inst) \wedge (\exists X2.(m1_subset_1 X2 k2_scm_inst) \wedge (\exists X3. \\
& (m1_subset_1 X3 (k7_card_1 np_9)) \wedge (X0 = k3_xtuple_0 X3 k1_xboole_0 \\
& (k2_finseq_4 k2_scm_inst X1 X2)))))) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 k2_scm_inst) \Rightarrow ((X1 = k5_scm_inst X0) \Leftrightarrow (\exists X2.(m2_finseq_1 \\
& X2 k2_scm_inst) \wedge ((X2 = k2_xtuple_0 X0) \wedge (X1 = k7_partfun1 k2_scm_inst \\
& X2 np_2))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k3_scm_inst) \Rightarrow ((\exists X1.(m1_subset_1 \\
& X1 k2_scm_inst) \wedge (\exists X2.(m1_subset_1 X2 k2_scm_inst) \wedge (\exists X3. \\
& (m1_subset_1 X3 (k7_card_1 np_9)) \wedge (X0 = k3_xtuple_0 X3 k1_xboole_0 \\
& (k2_finseq_4 k2_scm_inst X1 X2)))))) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 k2_scm_inst) \Rightarrow ((X1 = k4_scm_inst X0) \Leftrightarrow (\exists X2.(m2_finseq_1 \\
& X2 k2_scm_inst) \wedge ((X2 = k2_xtuple_0 X0) \wedge (X1 = k7_partfun1 k2_scm_inst \\
& X2 np_1))))))
\end{aligned} \tag{6}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(m1_subset_1 X0 k3_scm_inst) \Rightarrow (\forall X1.(m1_subset_1 \\
& X1 k2_scm_inst) \Rightarrow (\forall X2.(m1_subset_1 X2 k2_scm_inst) \Rightarrow (\forall X3. \\
& (m1_subset_1 X3 (k7_card_1 np_9)) \Rightarrow ((X0 = k3_xtuple_0 X3 k1_xboole_0 \\
& (k2_finseq_4 k2_scm_inst X1 X2)) \Rightarrow ((k4_scm_inst X0 = X1) \wedge (k5_scm_inst \\
& X0 = X2))))))
\end{aligned}$$