

t14_hallmar1
(TMQnhrzAjEYmFp15noFsGzTWtBnq1vrg6Z)

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Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k4_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k2_hallmar1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_hallmar1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (v1_finset_1 X1) \Rightarrow (\forall X2. (m1_subset_1 \\ & \quad X2 k5_numbers) \Rightarrow (\forall X3. (m2_finseq_1 X3 (k1_zfmisc_1 X1)) \Rightarrow \\ & (((X2 \in X0) \wedge (X2 \in k4_finseq_1 X3)) \Rightarrow (k1_hallmar1 X1 X3 X0 = k2_xboole_0 \\ & \quad (k1_hallmar1 X1 X3 (k6_subset_1 X0 (k1_tarski X2)))) (k1_funct_1 \\ & \quad \quad X3 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_finset_1 X0) \Rightarrow (\forall X1. (m2_finseq_1 X1 (k1_zfmisc_1 \\ & \quad X0)) \Rightarrow (\forall X2. (m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3. \forall X4. \\ & k1_hallmar1 X0 (k2_hallmar1 X0 X1 X2 X3) (k6_subset_1 X4 (k1_tarski \\ & \quad X2)) = k1_hallmar1 X0 X1 (k6_subset_1 X4 (k1_tarski X2)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. (m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1_finset_1 X0) \wedge \\ & ((m1_finseq_1 X1 (k1_zfmisc_1 X0)) \wedge (m1_subset_1 X2 k5_numbers))) \Rightarrow \\ & (m2_finseq_1 (k2_hallmar1 X0 X1 X2 X3) (k1_zfmisc_1 X0)) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v1_finset_1 X0) \Rightarrow (\forall X1.(m2_finseq_1 X1 (k1_zfmisc_1 \\
& \quad X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3.\forall X4. \\
& (m2_finseq_1 X4 (k1_zfmisc_1 X0)) \Rightarrow ((X4 = k2_hallmar1 X0 X1 X2 X3) \Leftrightarrow \\
& \quad ((k4_finseq_1 X4 = k4_finseq_1 X1) \wedge (\forall X5.(m1_subset_1 X5 \\
& k5_numbers) \Rightarrow ((X5 \in k4_finseq_1 X4) \Rightarrow (((X2 = X5) \Rightarrow (k1_funct_1 X4 \\
& X5 = k6_subset_1 (k1_funct_1 X1 X5) (k1_tarski X3)))) \wedge ((X2 \neq X5) \Rightarrow \\
& \quad (k1_funct_1 X4 X5 = k1_funct_1 X1 X5)))))))))
\end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \tag{6}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(v1_finset_1 X0) \Rightarrow (\forall X1.(m2_finseq_1 X1 (k1_zfmisc_1 \\
& \quad X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 k5_numbers) \Rightarrow (\forall X3.\forall X4. \\
& ((X2 \in k4_finseq_1 (k2_hallmar1 X0 X1 X2 X3)) \wedge (X2 \in X4)) \Rightarrow (k1_hallmar1 \\
& X0 (k2_hallmar1 X0 X1 X2 X3) X4 = k2_xboole_0 (k1_hallmar1 X0 X1 (k6_subset_1 \\
& X4 (k1_tarski X2))) (k6_subset_1 (k1_funct_1 X1 X2) (k1_tarski \\
& \quad X3))))))
\end{aligned}$$