

## l22\_msuhom\_1

(TMJKZ3XAyydasAXB2DVdkYUrYEDSEB91Btd)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_unialg\_1 : \iota \Rightarrow o$  be given. Let  $v3\_unialg\_1 : \iota \Rightarrow o$  be given. Let  $v4\_unialg\_1 : \iota \Rightarrow o$  be given. Let  $l1\_unialg\_1 : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_unialg\_1 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k6\_msualg\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_unialg\_1 : \iota \Rightarrow \iota$  be given. Let  $v7\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v11\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v1\_msualg\_1 : \iota \Rightarrow o$  be given. Let  $v5\_msualg\_1 : \iota \Rightarrow o$  be given. Let  $l1\_msualg\_1 : \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $u1\_msualg\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k3\_finseq\_2 : \iota \Rightarrow \iota$  be given. Let  $k7\_finseq\_2 : \iota \Rightarrow \iota$  be given. Let  $u2\_msualg\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_margrel1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1\_subset\_1 X0 X1) \quad (1)$$

Assume the following.

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_unialg\_1 X0) \wedge ((v3\_unialg\_1 X0) \wedge ((v4\_unialg\_1 X0) \wedge (l1\_unialg\_1 X0))))) \Rightarrow (k4\_finseq\_1 (k1\_unialg\_1 X0) = k4\_finseq\_1 (u1\_unialg\_1 X0)) \quad (2)$$

Assume the following.

$$\forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_unialg\_1 X0) \wedge ((v3\_unialg\_1 X0) \wedge ((v4\_unialg\_1 X0) \wedge (l1\_unialg\_1 X0))))) \Rightarrow ((v7\_struct\_0 (k6\_msualg\_1 X0) \wedge ((\neg v11\_struct\_0 (k6\_msualg\_1 X0) \wedge ((v1\_msualg\_1 (k6\_msualg\_1 X0) \wedge ((v5\_msualg\_1 (k6\_msualg\_1 X0) \wedge (l1\_msualg\_1 (k6\_msualg\_1 X0)))))))))) \quad (3)$$

Assume the following.

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_unialg\_1 X0) \wedge ((v3\_unialg\_1 \\
& X0) \wedge ((v4\_unialg\_1 X0) \wedge (l1\_unialg\_1 X0)))))) \Rightarrow (\forall X1.((v7\_struct\_0 \\
& X1) \wedge ((\neg v11\_struct\_0 X1) \wedge ((v1\_msualg\_1 X1) \wedge ((v5\_msualg\_1 X1) \wedge \\
& (l1\_msualg\_1 X1)))))) \Rightarrow ((X1 = k6\_msualg\_1 X0) \Leftrightarrow ((u1\_struct\_0 X1 = \\
& k1\_tarski k6\_numbers) \wedge ((u4\_struct\_0 X1 = k4\_finseq\_1 (k1\_unialg\_1 \\
& X0)) \wedge ((u1\_msualg\_1 X1 = k1\_partfun1 k5\_numbers k5\_numbers k5\_numbers \\
& (k3\_finseq\_2 (k1\_tarski k6\_numbers)) (k1\_unialg\_1 X0) (k7\_finseq\_2 \\
& k6\_numbers)) \wedge (u2\_msualg\_1 X1 = k1\_margrel1 k5\_numbers (k4\_finseq\_1 \\
& (k1\_unialg\_1 X0) k6\_numbers))))))
\end{aligned} \tag{4}$$

**Theorem 1**

$$\begin{aligned}
& \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v2\_unialg\_1 X0) \wedge ((v3\_unialg\_1 \\
& X0) \wedge ((v4\_unialg\_1 X0) \wedge (l1\_unialg\_1 X0)))))) \Rightarrow (\forall X1.(v7\_ordinal1 \\
& X1) \Rightarrow ((X1 \in k4\_finseq\_1 (u1\_unialg\_1 X0)) \Rightarrow (m1\_subset\_1 X1 (u4\_struct\_0 \\
& (k6\_msualg\_1 X0))))))
\end{aligned}$$