

t13_latsum_1

(TMY3vhNHcptb9wxRYdikMhSFAVJ3BnoXchP)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge (l1_orders_2 X1)) \Rightarrow (\forall X2. (X2 \in k3_xboole_0 \\ & (u1_struct_0 X0) (u1_struct_0 X1)) \Rightarrow (m1_subset_1 X2 (u1_struct_0 \\ & X0)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. k3_xboole_0 X0 X1 = k3_xboole_0 X1 X0 \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge (l1_orders_2 X0)) \Rightarrow (\forall X1. \\ & ((\neg v2_struct_0 X1) \wedge (l1_orders_2 X1)) \Rightarrow (\forall X2. (X2 \in k3_xboole_0 \\ & (u1_struct_0 X0) (u1_struct_0 X1)) \Rightarrow (m1_subset_1 X2 (u1_struct_0 \\ & X1)))) \end{aligned}$$