

t20_latsum_1

(TMUHzfCpqsblh8Smzt3XRAXTAHNwPqf6KxQ)

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Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_orders_2 : \iota \Rightarrow o$ be given. Let $v4_orders_2 : \iota \Rightarrow o$ be given. Let $v5_orders_2 : \iota \Rightarrow o$ be given. Let $v1_lattice3 : \iota \Rightarrow o$ be given. Let $v1_yellow_0 : \iota \Rightarrow o$ be given. Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v1_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v12_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k3_yellow_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ & X0) \wedge ((v5_orders_2 X0) \wedge ((v1_yellow_0 X0) \wedge (l1_orders_2 X0)))))) \Rightarrow \\ & (\forall X1. ((\neg v1_xboole_0 X1) \wedge ((v1_waybel_0 X1 X0) \wedge ((v12_waybel_0 \\ & X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0)))))) \Rightarrow (k3_yellow_0 \\ & X0 \in X1)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (X2 = k3_xboole_0 X0 X1) \Leftrightarrow (\forall X3. \\ & (X3 \in X2) \Leftrightarrow ((X3 \in X0) \wedge (X3 \in X1))) \end{aligned} \tag{2}$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v3_orders_2 X0) \wedge ((v4_orders_2 \\ & X0) \wedge ((v5_orders_2 X0) \wedge ((v1_lattice3 X0) \wedge ((v1_yellow_0 X0) \wedge \\ & (l1_orders_2 X0)))))) \Rightarrow (\forall X1. ((\neg v2_struct_0 X1) \wedge ((v3_orders_2 \\ & X1) \wedge ((v4_orders_2 X1) \wedge ((v5_orders_2 X1) \wedge ((v1_lattice3 X1) \wedge \\ & ((v1_yellow_0 X1) \wedge (l1_orders_2 X1)))))) \Rightarrow (((\neg v1_xboole_0 (\\ & k3_xboole_0 (u1_struct_0 X0) (u1_struct_0 X1))) \wedge ((v1_waybel_0 \\ & (k3_xboole_0 (u1_struct_0 X0) (u1_struct_0 X1)) X1) \wedge ((v12_waybel_0 \\ & (k3_xboole_0 (u1_struct_0 X0) (u1_struct_0 X1)) X1) \wedge (m1_subset_1 \\ & (k3_xboole_0 (u1_struct_0 X0) (u1_struct_0 X1)) (k1_zfmisc_1 \\ & (u1_struct_0 X1)))))) \Rightarrow (k3_yellow_0 X1 \in u1_struct_0 X0))) \end{aligned}$$