

t18_latsum_1

(TMHZ6ELQx7V1n2FasZJnW3b5cQxRaVMEhU7)

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Let $l1_orders_2 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_latsum_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v13_waybel_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_orders_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_orders_2 : \iota \Rightarrow \iota$ be given. Let $v1_orders_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(l1_orders_2 X1) \Rightarrow (\forall X2. \\ & \quad \forall X3. (((v13_waybel_0 (k3_xboole_0 (u1_struct_0 X0) (u1_struct_0 \\ & \quad X1)) X0) \wedge (m1_subset_1 (k3_xboole_0 (u1_struct_0 X0) (u1_struct_0 \\ & \quad X1)) (k1_zfmisc_1 (u1_struct_0 X0)))) \wedge ((k4_tarski X2 X3 \in u1_orders_2 \\ & \quad (k1_latsum_1 X0 X1)) \wedge (X2 \in u1_struct_0 X1))) \Rightarrow (X3 \in u1_struct_0 \\ & \quad X1))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0. \forall X1. ((l1_orders_2 X0) \wedge (l1_orders_2 X1)) \Rightarrow (v1_orders_2 (k1_latsum_1 X0 X1)) \wedge (l1_orders_2 (k1_latsum_1 X0 X1)) \tag{2}$$

Assume the following.

$$\forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow ((r1_orders_2 X0 X1 X2) \Leftrightarrow (k4_tarski X1 X2 \in u1_orders_2 X0)))) \tag{3}$$

Theorem 1

$$\begin{aligned} & \forall X0.(l1_orders_2 X0) \Rightarrow (\forall X1.(l1_orders_2 X1) \Rightarrow (\forall X2. \\ & \quad (m1_subset_1 X2 (u1_struct_0 (k1_latsum_1 X0 X1))) \Rightarrow (\forall X3. \\ & \quad (m1_subset_1 X3 (u1_struct_0 (k1_latsum_1 X0 X1))) \Rightarrow (((v13_waybel_0 \\ & \quad (k3_xboole_0 (u1_struct_0 X0) (u1_struct_0 X1)) X0) \wedge (m1_subset_1 \\ & \quad (k3_xboole_0 (u1_struct_0 X0) (u1_struct_0 X1)) (k1_zfmisc_1 \\ & \quad (u1_struct_0 X0)))) \wedge ((r1_orders_2 (k1_latsum_1 X0 X1) X2 X3) \wedge \\ & \quad (X2 \in u1_struct_0 X1))) \Rightarrow (X3 \in u1_struct_0 X1)))) \end{aligned}$$