

l4_real_lat

(TMLhYtH6AiGvvAis79WR459fbiEXiiZrDSz)

October 27, 2020

Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k3_real_lat : \iota$ be given. Let $k1_lattices : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xxreal_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((m1_subset_1 X0 (u1_struct_0 k3_real_lat)) \wedge \\ & (m1_subset_1 X1 (u1_struct_0 k3_real_lat))) \Rightarrow (k1_lattices k3_real_lat \\ & X0 X1 = k4_xxreal_0 X0 X1) \end{aligned} \quad (1)$$

Assume the following.

$$v3_membered (u1_struct_0 k3_real_lat) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (\\ & k4_xxreal_0 X0 X1 = k4_xxreal_0 X1 X0) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. (v1_xreal_0 X0) \Rightarrow (v1_xxreal_0 X0) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v3_membered X0) \Rightarrow (\forall X1. (m1_subset_1 X1 X0) \Rightarrow \\ & (v1_xreal_0 X1)) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} & \forall X0. (m1_subset_1 X0 (u1_struct_0 k3_real_lat)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (u1_struct_0 k3_real_lat)) \Rightarrow (k1_lattices k3_real_lat \\ & X0 X1 = k1_lattices k3_real_lat X1 X0)) \end{aligned}$$