

t14_filter_0

(TMVjNAgM8Ln4XXV2nszhwLpFay4rVZ5nqba)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v10_lattices : \iota \Rightarrow o$ be given. Let $l3_lattices : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $v19_lattices : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v20_lattices : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_struct_0 : \iota \Rightarrow \iota$ be given. Let $v18_lattices : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1_lattices : \iota \Rightarrow o$ be given. Let $l2_lattices : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge (l3_lattices X0))) \Rightarrow ((\neg v1_xboole_0 (k2_struct_0 X0)) \wedge ((v18_lattices (k2_struct_0 X0) X0) \wedge (v19_lattices (k2_struct_0 X0) X0))) \quad (1)$$

Assume the following.

$$\forall X0. (l3_lattices X0) \Rightarrow ((l1_lattices X0) \wedge (l2_lattices X0)) \quad (2)$$

Assume the following.

$$\forall X0. (l1_lattices X0) \Rightarrow (l1_struct_0 X0) \quad (3)$$

Assume the following.

$$\forall X0. (l1_struct_0 X0) \Rightarrow (m1_subset_1 (k2_struct_0 X0) (k1_zfmisc_1 (u1_struct_0 X0))) \quad (4)$$

Assume the following.

$$\forall X0. (l1_struct_0 X0) \Rightarrow (k2_struct_0 X0 = u1_struct_0 X0) \quad (5)$$

Assume the following.

$$\forall X0. ((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge (l3_lattices X0))) \Rightarrow (\forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (u1_struct_0 X0))) \Rightarrow ((v18_lattices X1 X0) \Rightarrow (v20_lattices X1 X0))) \quad (6)$$

Theorem 1

$$\forall X0.((\neg v2_struct_0 X0) \wedge ((v10_lattices X0) \wedge (l3_lattices X0))) \Rightarrow ((\neg v1_xboole_0 (u1_struct_0 X0)) \wedge ((v19_lattices (u1_struct_0 X0) X0) \wedge ((v20_lattices (u1_struct_0 X0) X0) \wedge (m1_subset_1 (u1_struct_0 X0) (k1_zfmisc_1 (u1_struct_0 X0)))))))$$