

t9_yellow_9
(TMFoGLjSL28xhZJhzZ589eVhuw48hW34Z5i)

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Let $v13_struct_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $np_1 : \iota$ be given. Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $k9_setfam_1 : \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $l1_struct_0 : \iota \Rightarrow o$ be given. Let $v2_tdlat_3 : \iota \Rightarrow o$ be given. Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v7_struct_0 : \iota \Rightarrow o$ be given. Let $v1_tdlat_3 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (1)$$

Assume the following.

$$\exists X0.v1_xboole_0 X0 \quad (2)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (l1_struct_0 X0) \quad (3)$$

Assume the following.

$$k1_xboole_0 = the (\lambda X0 : \iota.v1_xboole_0 X0) \quad (4)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow ((v2_tdlat_3 X0) \Leftrightarrow (u1_pre_topc X0 = k2_tarski k1_xboole_0 (u1_struct_0 X0))) \quad (5)$$

Assume the following.

$$\forall X0.((\neg v2_struct_0 X0) \wedge (l1_struct_0 X0)) \Rightarrow ((v7_struct_0 X0) \Leftrightarrow (\exists X1.(m1_subset_1 X1 (u1_struct_0 X0) \wedge (u1_struct_0 X0 = k6_domain_1 (u1_struct_0 X0) X1))) \quad (6)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow ((v1_tdlat_3 X0) \Leftrightarrow (u1_pre_topc X0 = k9_setfam_1 (u1_struct_0 X0))) \quad (7)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow ((v7_struct_0 X0) \Leftrightarrow (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (u1_struct_0 X0)) \Rightarrow (X1 = X2)))))) \quad (8)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (((v13_struct_0 X0 np_1) \wedge (v2_pre_topc X0)) \Rightarrow ((v13_struct_0 X0 np_1) \wedge ((v2_pre_topc X0) \wedge ((v1_tdlat_3 X0) \wedge (v2_tdlat_3 X0))))) \quad (9)$$

Assume the following.

$$\forall X0.(l1_struct_0 X0) \Rightarrow ((v13_struct_0 X0 np_1) \Rightarrow ((\neg v2_struct_0 X0) \wedge (v7_struct_0 X0))) \quad (10)$$

Theorem 1

$$\forall X0.(((v13_struct_0 X0 np_1) \wedge ((v2_pre_topc X0) \wedge (l1_pre_topc X0))) \Rightarrow ((u1_pre_topc X0 = k9_setfam_1 (u1_struct_0 X0)) \wedge (\forall X1.(m1_subset_1 X1 (u1_struct_0 X0)) \Rightarrow ((u1_struct_0 X0 = k6_domain_1 (u1_struct_0 X0) X1) \wedge (u1_pre_topc X0 = k2_tarski k1_xboole_0 (k6_domain_1 (u1_struct_0 X0) X1)))))$$