

l12_topreal1

(TMacNo4eM3rtvxFUviv7iaBVm1z5BWRqZP9)

October 27, 2020

Let $v2_pre_topc : \iota \Rightarrow o$ be given. Let $l1_pre_topc : \iota \Rightarrow o$ be given. Let $v8_pre_topc : \iota \Rightarrow o$ be given. Let $g1_pre_topc : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $u1_pre_topc : \iota \Rightarrow \iota$ be given. Let $m1_pre_topc : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(l1_pre_topc X1) \Rightarrow ((m1_pre_topc X0 X1) \Leftrightarrow (m1_pre_topc X0 (g1_pre_topc (u1_struct_0 X1) (u1_pre_topc X1)))))) \quad (1)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (m1_pre_topc X0 X0) \quad (2)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (m1_pre_topc (g1_pre_topc (u1_struct_0 X0) (u1_pre_topc X0)) X0) \quad (3)$$

Assume the following.

$$\forall X0.(l1_pre_topc X0) \Rightarrow (\forall X1.(m1_pre_topc X1 X0) \Rightarrow (l1_pre_topc X1)) \quad (4)$$

Assume the following.

$$\forall X0.((v8_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow (\forall X1.(m1_pre_topc X1 X0) \Rightarrow (v8_pre_topc X1)) \quad (5)$$

Theorem 1

$$\forall X0.((v2_pre_topc X0) \wedge (l1_pre_topc X0)) \Rightarrow ((v8_pre_topc X0) \Leftrightarrow (v8_pre_topc (g1_pre_topc (u1_struct_0 X0) (u1_pre_topc X0))))$$