

t157_member_1 (TMYhdELrdL- rDD9Yve4TG1KHHC5uncwB76R1)

October 27, 2020

Let $v2_membered : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k18_member_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_member_1 : \iota \Rightarrow \iota$ be given. Let $k16_member_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k10_member_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_member_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (\forall X1.(v2_membered X1) \Rightarrow (k4_member_1 (k3_xboole_0 X0 X1) = k3_xboole_0 (k4_member_1 X0) (k4_member_1 X1))) \quad (1)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (\forall X1.(v2_membered X1) \Rightarrow (\forall X2.(v1_xreal_0 X2) \Rightarrow (k16_member_1 (k3_xboole_0 X0 X1) X2 = k3_xboole_0 (k16_member_1 X0 X2) (k16_member_1 X1 X2)))) \quad (2)$$

Assume the following.

$$\forall X0.(v1_xxreal_0 X0) \Rightarrow (v2_membered (k1_tarski X0)) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(v2_membered X0) \Rightarrow (v2_membered (k3_xboole_0 X1 X0)) \quad (4)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (v2_membered (k4_member_1 X0)) \quad (5)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (\forall X1.(v2_membered X1) \Rightarrow (k10_member_1 X0 X1 = k8_member_1 X0 (k4_member_1 X1))) \quad (6)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (k18_member_1 X0 X1 = k10_member_1 (k1_tarski X1) X0)) \quad (7)$$

Assume the following.

$$\forall X0.(v2_membered\ X0) \Rightarrow (\forall X1.(v1_xreal_0\ X1) \Rightarrow (k16_member_1\ X0\ X1 = k8_member_1\ (k1_tarski\ X1)\ X0)) \quad (8)$$

Assume the following.

$$\forall X0.(v1_xreal_0\ X0) \Rightarrow (v1_xreal_0\ X0) \quad (9)$$

Theorem 1

$$\forall X0.(v2_membered\ X0) \Rightarrow (\forall X1.(v2_membered\ X1) \Rightarrow (\forall X2.(v1_xreal_0\ X2) \Rightarrow (k18_member_1\ (k3_xboole_0\ X0\ X1)\ X2 = k3_xboole_0\ (k18_member_1\ X0\ X2)\ (k18_member_1\ X1\ X2))))$$