t58_member_1 (TMbYGJc1HS7aHNsUU6df6tGvzq2xxmLv2sD)

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Let $v2\_membered : \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k10\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_member\_1 : \iota \Rightarrow \iota$ be given. Let $k8\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v2\_membered\ X1) \Rightarrow (k4\_member\_1\ (k3\_xboole\_0\ X0\ X1) = k3\_xboole\_0\ (k4\_member\_1\ X0)\ (k4\_member\_1\ X1))) \tag{1}$$

Assume the following.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v2\_membered\ X1) \Rightarrow (\forall X2.(v2\_membered\ X2) \Rightarrow (r1\_tarski\ (k8\_member\_1\ X0\ (k3\_xboole\_0\ X1\ X2))\ (k3\_xboole\_0\ (k8\_member\_1\ X0\ X1)\ (k8\_member\_1\ X0\ X2))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(v2\_membered\ X0) \Rightarrow (v2\_membered\ (k3\_xboole\_0\ X1\ X0)) \tag{3}$$

Assume the following.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (v2\_membered\ (k4\_member\_1\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v2\_membered\ X1) \Rightarrow (k10\_member\_1\ X0\ X1 = k8\_member\_1\ X0\ (k4\_member\_1\ X1))) \tag{5}$$

Theorem 1

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v2\_membered\ X1) \Rightarrow (\forall X2.(v2\_membered\ X2) \Rightarrow (r1\_tarski\ (k10\_member\_1\ X0\ (k3\_xboole\_0\ X1\ X2))\ (k3\_xboole\_0\ (k10\_member\_1\ X0\ X1)\ (k10\_member\_1\ X0\ X2)))))$$