t173_member_1 (TMXBcmhD-dgdqq8ftm24BD1rabeDs1MP3RP3)

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Let $v2\_membered : \iota \Rightarrow o$ be given. Let $v1\_xreal\_0 : \iota \Rightarrow o$ be given. Let $k20\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_member\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $k18\_member\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (k20\_member\_1\ X0\ X1 = k4\_member\_1\ (k18\_member\_1\ X0\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v2\_membered\ X1) \Rightarrow (\forall X2.(v1\_xreal\_0\ X2) \Rightarrow (k18\_member\_1\ (k3\_xboole\_0\ X0\ X1)\ X2 = k3\_xboole\_0\ (k18\_member\_1\ X0\ X2)\ (k18\_member\_1\ X1\ X2)))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((v2\_membered\ X0) \wedge (v1\_xxreal\_0\ X1)) \Rightarrow (v2\_membered\ (k18\_member\_1\ X0\ X1)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(v2\_membered\ X0) \Rightarrow (v2\_membered\ (k3\_xboole\_0\ X1\ X0)) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xreal\_0\ X0) \Rightarrow (v1\_xxreal\_0\ X0) \tag{6}$$

Theorem 1

$$\forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v2\_membered\ X1) \Rightarrow (\forall X2.(v1\_xreal\_0\ X2) \Rightarrow (k20\_member\_1\ (k3\_xboole\_0\ X0\ X1)\ X2 = k3\_xboole\_0\ (k20\_member\_1\ X0\ X2)\ (k20\_member\_1\ X1\ X2))))$$