

t174\_member\_1  
(TMTGncw5LfpwX5ULUacBf1qN4o7jVpKjXz)

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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  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  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. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(v2\_membered X1) \Rightarrow (k4\_member\_1 (k6\_subset\_1 X0 X1) = k6\_subset\_1 (k4\_member\_1 X0) (k4\_member\_1 X1))) \quad (1)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(v1\_xreal\_0 X1) \Rightarrow (k20\_member\_1 X0 X1 = k4\_member\_1 (k18\_member\_1 X0 X1))) \quad (2)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(v2\_membered X1) \Rightarrow (\forall X2.(v1\_xreal\_0 X2) \Rightarrow (k18\_member\_1 (k6\_subset\_1 X0 X1) X2 = k6\_subset\_1 (k18\_member\_1 X0 X2) (k18\_member\_1 X1 X2)))) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.k6\_subset\_1 X0 X1 = k4\_xboole\_0 X0 X1 \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v2\_membered X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow (v2\_membered (k18\_member\_1 X0 X1)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(v2\_membered X0) \Rightarrow (v2\_membered (k4\_xboole\_0 X0 X1)) \quad (6)$$

Assume the following.

$$\forall X0.(v1\_xreal\_0 X0) \Rightarrow (v1\_xxreal\_0 X0) \quad (7)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v2\_membered\ X0) \Rightarrow (\forall X1.(v2\_membered\ X1) \Rightarrow (\forall X2. \\ & (v1\_xreal\_0\ X2) \Rightarrow (k20\_member\_1\ (k6\_subset\_1\ X0\ X1)\ X2 = k6\_subset\_1 \\ & (k20\_member\_1\ X0\ X2)\ (k20\_member\_1\ X1\ X2)))) \end{aligned}$$