# t60_member_1 <br> (TMNL1oqX3MSThW3ciEKNjuyH9moMJp7kaSj) 

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Let $v 2 \_$membered $: ~ \iota \Rightarrow 0$ be given. Let $k 4 \_$member_1 : $\iota \Rightarrow \iota$ be given. Let $k 10 \_$member_1 : $\iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k 8 \_$member_1 : $\iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.
$\forall X 0$.(v2_membered $X 0) \Rightarrow\left(\forall X 1 .\left(v 2 \_m e m b e r e d ~ X 1\right) \Rightarrow\left(k 4 \_m e m b e r \_1\right.\right.$ $\left(k 8 \_m e m b e r \_1 X 0 X 1\right)=k 8 \_m e m b e r \_1$ ( $\left.k 4 \_m e m b e r \_1 X 0\right)\left(k 4 \_m e m b e r \_1\right.$

X1)))
Assume the following.

$$
\begin{equation*}
\forall X 0 .\left(v 2 \_m e m b e r e d X 0\right) \Rightarrow\left(k 4 \_m e m b e r \_1\left(k 4 \_m e m b e r \_1 X 0\right)=X 0\right) \tag{2}
\end{equation*}
$$

Assume the following.

$$
\begin{equation*}
\forall X 0 .\left(v 2 \_m e m b e r e d \quad X 0\right) \Rightarrow\left(v 2 \_m e m b e r e d ~\left(k 4 \_m e m b e r \_1 X 0\right)\right) \tag{3}
\end{equation*}
$$

Assume the following.

$$
\begin{gather*}
\forall X 0 .\left(v 2 \_m e m b e r e d \quad X 0\right) \Rightarrow\left(\forall X 1 .\left(v 2 \_ \text {membered } X 1\right) \Rightarrow\left(k 10 \_m e m b e r \_1\right.\right. \\
\left.\left.X 0 X 1=k 8 \_m e m b e r \_1 X 0\left(k 4 \_m e m b e r \_1 X 1\right)\right)\right) \tag{4}
\end{gather*}
$$

## Theorem 1

$\forall X 0 .\left(v 2 \_\right.$membered $\left.X 0\right) \Rightarrow\left(\forall X 1 .\left(v 2 \_m e m b e r e d ~ X 1\right) \Rightarrow\left(k 4 \_m e m b e r \_1\right.\right.$ $\left.\left.\left(k 10 \_m e m b e r \_1 X 0 X 1\right)=k 8 \_m e m b e r \_1\left(k 4 \_m e m b e r \_1 X 0\right) X 1\right)\right)$

