# t171_member_1 (TMHPEm2d4WmpqwuJ2tWyhYyJhvczfBp.JSze) 

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Let $v 2 \_$membered : $\iota \Rightarrow o$ be given. Let $v 1_{\_} x x$ real_0 : $\iota \Rightarrow 0$ be given. Let $k 20 \_m e m b e r \_1: ~ \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let k4_member_1 : $\iota \Rightarrow \iota$ be given. Let $k$ 18_member_1 : $\iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k 10 \_$member_1 : $\iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k 8 \_m e m b e r \_1: \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k 1_{\_}$tarski $: \iota \Rightarrow \iota$ be given. Assume the following.
$\forall X 0 .\left(v 2 \_\right.$membered $\left.X 0\right) \Rightarrow\left(\forall X 1 .\left(v 2 \_m e m b e r e d ~ X 1\right) \Rightarrow\left(k 4 \_m e m b e r \_1\right.\right.$
$\left.\left.\left(k 10 \_m e m b e r \_1 X 0 X 1\right)=k 8 \_m e m b e r \_1\left(k 4 \_m e m b e r \_1 X 0\right) X 1\right)\right)$

Assume the following.

$$
\begin{equation*}
\forall X 0 .\left(v 1 \_x x r e a l \_0 X 0\right) \Rightarrow\left(v 2 \_m e m b e r e d\left(k 1 \_t a r s k i X 0\right)\right) \tag{2}
\end{equation*}
$$

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.

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

Assume the following.

$$
\begin{gather*}
\forall X 0 .\left(v 2 \_m e m b e r e d ~ X 0\right) \Rightarrow\left(\forall X 1 .\left(v 1 \_x x r e a l \_0 X 1\right) \Rightarrow\left(k 20 \_m e m b e r \_1\right.\right. \\
\left.\left.X 0 X 1=k 10 \_m e m b e r \_1 X 0\left(k 1 \_ \text {tarski } X 1\right)\right)\right) \tag{5}
\end{gather*}
$$

Assume the following.

$$
\begin{gather*}
\forall X 0 .\left(v 2 \_m e m b e r e d ~ X 0\right) \Rightarrow\left(\forall X 1 .\left(v 1 \_x x r e a l \_0 X 1\right) \Rightarrow\left(k 18 \_m e m b e r \_1\right.\right. \\
\left.\left.X 0 X 1=k 10 \_m e m b e r \_1\left(k 1 \_t a r s k i X 1\right) X 0\right)\right) \tag{6}
\end{gather*}
$$

Assume the following.

$$
\begin{gather*}
\forall X 0 . \forall X 1 .\left(\left(v 2 \_m e m b e r e d X 0\right) \wedge\left(v 2 \_ \text {membered } X 1\right)\right) \Rightarrow(  \tag{7}\\
\left.k 8 \_m e m b e r \_1 X 0 X 1=k 8 \_m e m b e r \_1 X 1 X 0\right)
\end{gather*}
$$

## Theorem 1

$$
\begin{gathered}
\forall X 0 .\left(v 2 \_m e m b e r e d \quad X 0\right) \Rightarrow\left(\forall X 1 .\left(v 1 \_x x r e a l \_0 X 1\right) \Rightarrow\left(k 20 \_m e m b e r \_1\right.\right. \\
\left.\left.X 0 X 1=k 4 \_m e m b e r \_1\left(k 18 \_m e m b e r \_1 X 0 X 1\right)\right)\right)
\end{gathered}
$$

