t224_xxreal_1 (TMQtMJKQ7GTqQ5Nigt5sx9roeFsMe4eco6J)

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Let $k1\_numbers : \iota$ be given. Let $k4\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xxreal\_0 : \iota$ be given. Let $k1\_xxreal\_0 : \iota$ be given. Let $v1\_xxreal\_0 : \iota \Rightarrow o$ be given. Let $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_membered : \iota \Rightarrow o$ be given. Let $v3\_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\neg(X0 \in k1\_numbers) \wedge (r1\_xxreal\_0\ k1\_xxreal\_0\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\forall X1.(v1\_xxreal\_0\ X1) \Rightarrow (\forall X2.(v1\_xxreal\_0\ X2) \Rightarrow ((X0 \in k4\_xxreal\_1\ X1\ X2) \Leftrightarrow ((\neg r1\_xxreal\_0\ X0\ X1) \wedge (\neg r1\_xxreal\_0\ X2\ X0))))) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\neg(\neg X0 \in k1\_numbers) \wedge ((X0 \neq k1\_xxreal\_0) \wedge (X0 \neq k2\_xxreal\_0))) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0\ X0) \Rightarrow (\neg(X0 \in k1\_numbers) \wedge (r1\_xxreal\_0\ X0\ k2\_xxreal\_0)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0\ X0) \wedge (v1\_xxreal\_0\ X1)) \Rightarrow (r1\_xxreal\_0\ X0\ X0) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0\ X0) \wedge (v1\_xxreal\_0\ X1)) \Rightarrow (v2\_membered\ (k4\_xxreal\_1\ X0\ X1)) \tag{6}$$

Assume the following.

$$v3\_membered\ k1\_numbers \tag{7}$$

Assume the following.

$$v1\_xxreal\_0\ k2\_xxreal\_0 \tag{8}$$

Assume the following.

$$v1\_xxreal\_0\ k1\_xxreal\_0 \tag{9}$$

Assume the following.

$$\begin{array}{c}\forall X0.(v2\_membered\ X0)\Rightarrow(\forall X1.(v2\_membered\ X1)\Rightarrow((\\ X0 = X1)\Leftrightarrow(\forall X2.(v1\_xxreal\_0\ X2)\Rightarrow((X2 \in X0)\Leftrightarrow(X2 \in X1)))))\end{array} \tag{10}$$

Assume the following.

$$\forall X0.(v3\_membered\ X0)\Rightarrow(v2\_membered\ X0) \tag{11}$$

Theorem 1 $k1\_numbers = k4\_xxreal\_1\ k2\_xxreal\_0\ k1\_xxreal\_0$.