

t7\_matrix10  
(TMchKtG2JCneGtw27sunGbj24FC1kV76R6c)

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Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $m1\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $v2\_matrix10 : \iota \Rightarrow o$  be given. Let  $v1\_matrix10 : \iota \Rightarrow o$  be given. Let  $k2\_matrix10 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k4\_xcmplx\_0 : \iota \Rightarrow \iota$  be given. Let  $v1\_matrix\_1 : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_finseq\_2 : \iota \Rightarrow \iota$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_matrix\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_matrixr1 : \iota \Rightarrow \iota$  be given. Let  $k1\_real\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_matrix\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0.(v1\_xreal\_0 X0) \Rightarrow (&(\neg(\neg r1\_xreal\_0 k6\_numbers X0) \wedge \\ &(r1\_xreal\_0 (k4\_xcmplx\_0 X0) k6\_numbers)) \wedge (\neg(\neg r1\_xreal\_0 \\ &(k4\_xcmplx\_0 X0) k6\_numbers) \wedge (r1\_xreal\_0 k6\_numbers X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7\_ordinal1 X0) \Rightarrow (&\forall X1.(v7\_ordinal1 X1) \Rightarrow (\forall X2. \\ &((v1\_matrix\_1 X2) \wedge (m2\_finseq\_1 X2 (k3\_finseq\_2 k1\_numbers))) \Rightarrow \\ &((k4\_tarski X0 X1 \in k2\_matrix\_1 X2) \Rightarrow (k3\_matrix\_1 k1\_numbers (k4\_matrixr1 \\ &X2) X0 X1 = k1\_real\_1 (k3\_matrix\_1 k1\_numbers X2 X0 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7\_ordinal1 X0) \Rightarrow (&\forall X1.(\neg v1\_xboole\_0 X1) \Rightarrow ( \\ \forall X2.(m1\_matrix\_1 X2 X1 X0 X0) \Rightarrow (&(k3\_finseq\_1 X2 = X0) \wedge ((k1\_matrix\_1 \\ X2 = X0) \wedge (k2\_matrix\_1 X2 = k2\_zfmisc\_1 (k2\_finseq\_1 X0) (k2\_finseq\_1 \\ X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0)\wedge(m1\_matrix\_1\ X1\ k1\_numbers\ X0\ X0))\Rightarrow(k2\_matrix10\ X0\ X1 = k4\_matrixr1\ X1) \quad (5)$$

Assume the following.

$$\forall X0.(m1\_subset\_1\ X0\ k1\_numbers)\Rightarrow(k1\_real\_1\ X0 = k4\_xcmplx\_0\ X0) \quad (6)$$

Assume the following.

$$v3\_membered\ k1\_numbers \quad (7)$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0)\wedge((v7\_ordinal1\ X1)\wedge(v7\_ordinal1\ X2)))\Rightarrow(\forall X3.(m1\_matrix\_1\ X3\ X0\ X1\ X2)\Rightarrow((v1\_matrix\_1\ X3)\wedge(m2\_finseq\_1\ X3\ (k3\_finseq\_2\ X0)))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.(((v1\_matrix\_1\ X1)\wedge(m1\_finseq\_1\ X1\ (k3\_finseq\_2\ X0)))\wedge((v7\_ordinal1\ X2)\wedge(v7\_ordinal1\ X3)))\Rightarrow(m1\_subset\_1\ (k3\_matrix\_1\ X0\ X1\ X2\ X3)\ X0) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((v7\_ordinal1\ X0)\wedge(m1\_matrix\_1\ X1\ k1\_numbers\ X0\ X0))\Rightarrow(m1\_matrix\_1\ (k2\_matrix10\ X0\ X1)\ k1\_numbers\ X0\ X0) \quad (11)$$

Assume the following.

$$\forall X0.(((v1\_matrix\_1\ X0)\wedge(m2\_finseq\_1\ X0\ (k3\_finseq\_2\ k1\_numbers)))\Rightarrow(((v2\_matrix10\ X0)\Leftrightarrow(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow(\neg(k4\_tarski\ X1\ X2 \in k2\_matrix\_1\ X0)\wedge(r1\_xreal\_0\ k6\_numbers\ (k3\_matrix\_1\ k1\_numbers\ X0\ X1\ X2)))))))) \quad (12)$$

Assume the following.

$$\forall X0.(((v1\_matrix\_1\ X0)\wedge(m2\_finseq\_1\ X0\ (k3\_finseq\_2\ k1\_numbers)))\Rightarrow(((v1\_matrix10\ X0)\Leftrightarrow(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow(\neg(k4\_tarski\ X1\ X2 \in k2\_matrix\_1\ X0)\wedge(r1\_xreal\_0\ (k3\_matrix\_1\ k1\_numbers\ X0\ X1\ X2)\ k6\_numbers)))))))) \quad (13)$$

Assume the following.

$$\forall X0.(v3\_membered\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ X0)\Rightarrow(v1\_xreal\_0\ X1)) \quad (14)$$

**Theorem 1**

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(m1\_matrix\_1\ X1\ k1\_numbers\ X0\ X0) \Rightarrow ((v2\_matrix10\ X1) \Rightarrow (v1\_matrix10\ (k2\_matrix10\ X0\ X1))))$$