t2_matrix_8 (TMGkziA4VUskU9G7gcSfMqVvrVgjzTe9vi3)

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Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v6\_struct\_0 : \iota \Rightarrow o$ be given. Let $v13\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v33\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v3\_group\_1 : \iota \Rightarrow o$ be given. Let $v5\_group\_1 : \iota \Rightarrow o$ be given. Let $v2\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v3\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_rlvect\_1 : \iota \Rightarrow o$ be given. Let $v4\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $v5\_vectsp\_1 : \iota \Rightarrow o$ be given. Let $l6\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v1\_matrix\_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k11\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_matrix\_8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $m1\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_matrix\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_matrix\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_matrix\_1 : \iota \Rightarrow o$ be given. Let $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_finseq\_2 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k4\_matrix\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_matrix\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_matrix\_6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1\_struct\_0 : \iota \Rightarrow o$ be given. Let $l2\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l5\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l1\_algstr\_0 : \iota \Rightarrow o$ be given. Let $k5\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_struct\_0 : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (\forall X1.(\neg v1\_xboole\_0\ X1) \Rightarrow (\forall X2.(m1\_matrix\_1\ X2\ X1\ X0\ X0) \Rightarrow ((k3\_finseq\_1\ X2 = X0) \wedge ((k1\_matrix\_1\ X2 = X0) \wedge (k2\_matrix\_1\ X2 = k2\_zfmisc\_1\ (k2\_finseq\_1\ X0)\ (k2\_finseq\_1\ X0)))))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((\neg v6\_struct\_0\ X0) \wedge ((v13\_algstr\_0\ X0) \wedge ((v33\_algstr\_0\ X0) \wedge ((v3\_group\_1\ X0) \wedge ((v5\_group\_1\ X0) \wedge ((v2\_rlvect\_1\ X0) \wedge ((v3\_rlvect\_1\ X0) \wedge ((v4\_rlvect\_1\ X0) \wedge ((v4\_vectsp\_1\ X0) \wedge ((v5\_vectsp\_1\ X0) \wedge (l6\_algstr\_0\ X0))))))))))) \Rightarrow (\forall X1.((v1\_matrix\_1\ X1) \wedge (m2\_finseq\_1\ X1\ (k3\_finseq\_2\ (u1\_struct\_0\ X0)))) \Rightarrow (k4\_matrix\_3\ X0\ (k1\_matrix\_3\ X0\ (k3\_finseq\_1\ X1)\ (k3\_finseq\_1\ X1))\ X1 = k1\_matrix\_3\ X0\ (k3\_finseq\_1\ X1)\ (k1\_matrix\_1\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((v7\_ordinal1\ X0)\wedge (((\neg v2\_struct\_0\ X1)\wedge((\neg v6\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge ((v33\_algstr\_0\ X1)\wedge((v3\_group\_1\ X1)\wedge((v5\_group\_1\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v4\_vectsp\_1\ X1)\wedge ((v5\_vectsp\_1\ X1)\wedge(l6\_algstr\_0\ X1))))))))))))\wedge((m1\_matrix\_1\ X2\ (u1\_struct\_0\ X1)\ X0\ X0)\wedge(m1\_matrix\_1\ X3\ (u1\_struct\_0\ X1)\ X0\ X0))))\Rightarrow (k4\_matrix\_6\ X0\ X1\ X2\ X3 = k4\_matrix\_3\ X1\ X2\ X3) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_struct\_0\ X0))\Rightarrow(\neg v1\_xboole\_0\ (u1\_struct\_0\ X0)) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0\ X0)\wedge((v7\_ordinal1\ X1)\wedge(v7\_ordinal1\ X2)))\Rightarrow(\forall X3.(m1\_matrix\_1\ X3\ X0\ X1\ X2)\Rightarrow ((v1\_matrix\_1\ X3)\wedge(m2\_finseq\_1\ X3\ (k3\_finseq\_2\ X0)))) \tag{5}$$

Assume the following.

$$\forall X0.(l6\_algstr\_0\ X0)\Rightarrow((l2\_algstr\_0\ X0)\wedge(l5\_algstr\_0\ X0)) \tag{6}$$

Assume the following.

$$\forall X0.(l2\_struct\_0\ X0)\Rightarrow(l1\_struct\_0\ X0) \tag{7}$$

Assume the following.

$$\forall X0.(l2\_algstr\_0\ X0)\Rightarrow((l2\_struct\_0\ X0)\wedge(l1\_algstr\_0\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge(l6\_algstr\_0\ X0))\wedge (v7\_ordinal1\ X1))\Rightarrow(m1\_matrix\_1\ (k11\_matrix\_1\ X0\ X1)\ (u1\_struct\_0\ X0)\ X1\ X1) \tag{9}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge ((\neg v6\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v33\_algstr\_0\ X1)\wedge((v3\_group\_1\ X1)\wedge((v5\_group\_1\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v4\_vectsp\_1\ X1)\wedge((v5\_vectsp\_1\ X1)\wedge (l6\_algstr\_0\ X1))))))))))\Rightarrow(\forall X2.(m1\_matrix\_1\ X2\ (u1\_struct\_0\ X1)\ X0\ X0)\Rightarrow((v2\_matrix\_8\ X2\ X0\ X1)\Leftrightarrow(k4\_matrix\_6\ X0\ X1\ X2\ X2 = k11\_matrix\_1\ X1\ X0)))) \tag{10}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((\neg v6\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v33\_algstr\_0\ X1)\wedge((v3\_group\_1\ X1)\wedge((v5\_group\_1\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v4\_vectsp\_1\ X1)\wedge((v5\_vectsp\_1\ X1)\wedge(l6\_algstr\_0\ X1))))))))))))\Rightarrow(\forall X2.(m1\_matrix\_1\ X2\ (u1\_struct\_0\ X1)\ X0\ X0)\Rightarrow((v1\_matrix\_8\ X2\ X0\ X1)\Leftrightarrow(k4\_matrix\_6\ X0\ X1\ X2\ X2 = X2))))) \tag{11}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((\neg v6\_struct\_0\ X0)\wedge((v13\_algstr\_0\ X0)\wedge((v33\_algstr\_0\ X0)\wedge((v3\_group\_1\ X0)\wedge((v5\_group\_1\ X0)\wedge((v2\_rlvect\_1\ X0)\wedge((v3\_rlvect\_1\ X0)\wedge((v4\_rlvect\_1\ X0)\wedge((v4\_vectsp\_1\ X0)\wedge((v5\_vectsp\_1\ X0)\wedge(l6\_algstr\_0\ X0))))))))))\Rightarrow(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(\forall X2.(v7\_ordinal1\ X2)\Rightarrow(k1\_matrix\_3\ X0\ X1\ X2 = k5\_finseq\_2\ (k4\_finseq\_2\ X2\ (u1\_struct\_0\ X0))\ X1\ (k5\_finseq\_2\ (u1\_struct\_0\ X0)\ X2\ (k4\_struct\_0\ X0))))) \tag{12}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l6\_algstr\_0\ X0))\Rightarrow(\forall X1.(v7\_ordinal1\ X1)\Rightarrow(k11\_matrix\_1\ X0\ X1 = k5\_finseq\_2\ (k4\_finseq\_2\ X1\ (u1\_struct\_0\ X0))\ X1\ (k5\_finseq\_2\ (u1\_struct\_0\ X0)\ X1\ (k4\_struct\_0\ X0)))) \tag{13}$$

Theorem 1

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((\neg v6\_struct\_0\ X1)\wedge((v13\_algstr\_0\ X1)\wedge((v33\_algstr\_0\ X1)\wedge((v3\_group\_1\ X1)\wedge((v5\_group\_1\ X1)\wedge((v2\_rlvect\_1\ X1)\wedge((v3\_rlvect\_1\ X1)\wedge((v4\_rlvect\_1\ X1)\wedge((v4\_vectsp\_1\ X1)\wedge((v5\_vectsp\_1\ X1)\wedge(l6\_algstr\_0\ X1))))))))))\Rightarrow((v1\_matrix\_8\ (k11\_matrix\_1\ X1\ X0)\ X0\ X1)\wedge(v2\_matrix\_8\ (k11\_matrix\_1\ X1\ X0)\ X0\ X1)))$$