t23_matrix_2 (TM-FqTFX733t3vDdLP8Wa6LZke3gFK23VVoA)

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Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $m1\_matrix\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12\_matrix\_2 : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k11\_matrix\_2 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k13\_matrix\_2 : \iota \Rightarrow \iota$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v3\_matrix\_2 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v15\_algstr\_0 : \iota \Rightarrow o$ be given. Let $l3\_algstr\_0 : \iota \Rightarrow o$ be given. Let $k1\_binop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2\_algstr\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{1}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (k11\_matrix\_2\ (k12\_matrix\_2\ X0) = X0) \tag{2}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow ((\neg v1\_xboole\_0\ (k12\_matrix\_2\ X0)) \wedge (v3\_matrix\_2\ (k12\_matrix\_2\ X0))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v1\_xboole\_0\ X0) \wedge (v3\_matrix\_2\ X0)) \Rightarrow (\forall X1.\ (m1\_matrix\_2\ X1\ X0) \Rightarrow ((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ (k2\_finseq\_1\ (k11\_matrix\_2\ X0))\ (k2\_finseq\_1\ (k11\_matrix\_2\ X0))) \wedge ((v3\_funct\_2\ X1\ (k2\_finseq\_1\ (k11\_matrix\_2\ X0))\ (k2\_finseq\_1\ (k11\_matrix\_2\ X0))) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_finseq\_1\ (k11\_matrix\_2\ X0))\ (k2\_finseq\_1\ (k11\_matrix\_2\ X0))))))))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ X0\ X0)\wedge((v3\_funct\_2\ X1\ X0\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0))))))\Rightarrow((v1\_funct\_1\ (k2\_funct\_2\ X0\ X1))\wedge((v1\_funct\_2\ (k2\_funct\_2\ X0\ X1)\ X0\ X0)\wedge((v3\_funct\_2\ (k2\_funct\_2\ X0\ X1)\ X0\ X0)\wedge(m1\_subset\_1\ (k2\_funct\_2\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0))))))) \tag{5}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v15\_algstr\_0\ (k13\_matrix\_2\ X0))\wedge(l3\_algstr\_0\ (k13\_matrix\_2\ X0))) \tag{6}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(X1 = k12\_matrix\_2\ X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (k2\_finseq\_1\ X0)\ (k2\_finseq\_1\ X0))\wedge((v3\_funct\_2\ X2\ (k2\_finseq\_1\ X0)\ (k2\_finseq\_1\ X0))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_finseq\_1\ X0)\ (k2\_finseq\_1\ X0))))))))) \tag{7}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.((v15\_algstr\_0\ X1)\wedge(l3\_algstr\_0\ X1))\Rightarrow((X1 = k13\_matrix\_2\ X0)\Leftrightarrow((u1\_struct\_0\ X1 = k12\_matrix\_2\ X0)\wedge(\forall X2.(m1\_matrix\_2\ X2\ (k12\_matrix\_2\ X0))\Rightarrow(\forall X3.(m1\_matrix\_2\ X3\ (k12\_matrix\_2\ X0))\Rightarrow(k1\_binop\_1\ (u2\_algstr\_0\ X1)\ X2\ X3 = k1\_partfun1\ (k2\_finseq\_1\ (k11\_matrix\_2\ (k12\_matrix\_2\ X0)))\ (k2\_finseq\_1\ (k11\_matrix\_2\ (k12\_matrix\_2\ X0)))\ (k2\_finseq\_1\ (k11\_matrix\_2\ (k12\_matrix\_2\ X0)))\ (k2\_finseq\_1\ (k11\_matrix\_2\ (k12\_matrix\_2\ X0)))\ X2\ X3)))))) \tag{8}$$

Theorem 1

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(m1\_matrix\_2\ X1\ (k12\_matrix\_2\ X0))\Rightarrow(m1\_subset\_1\ (k2\_funct\_2\ (k2\_finseq\_1\ (k11\_matrix\_2\ (k12\_matrix\_2\ X0)))\ X1)\ (u1\_struct\_0\ (k13\_matrix\_2\ X0))))$$