t20_matrix_2 (TMFN-bZJtXzxzEDgJhJN3kN6FtzSbGPWfzkX)

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Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_finseq\_2 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k13\_matrix\_2 : \iota \Rightarrow \iota$ be given. Let $k6\_partfun1 : \iota \Rightarrow \iota$ be given. Let $k4\_relat\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $k1\_finseq\_1 : \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v3\_relat\_2 : \iota \Rightarrow o$ be given. Let $v4\_relat\_2 : \iota \Rightarrow o$ be given. Let $v8\_relat\_2 : \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v15\_algstr\_0 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v3\_card\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_finseq\_1 : \iota \Rightarrow o$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l3\_algstr\_0 : \iota \Rightarrow o$ be given. Let $k12\_matrix\_2 : \iota \Rightarrow \iota$ 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 $m1\_matrix\_2 : \iota \Rightarrow \iota \Rightarrow o$ 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. Let $k11\_matrix\_2 : \iota \Rightarrow \iota$ be given. Let $v1\_relat\_2 : \iota \Rightarrow o$ be given. Let $g3\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

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

Assume the following.

$$\forall X0.k6\_partfun1\ X0 = k4\_relat\_1\ X0 \tag{2}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow (k2\_finseq\_1\ X0 = k1\_finseq\_1\ X0) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_relat\_1\ (k4\_relat\_1\ X0)) \wedge ((v3\_relat\_2\ (k4\_relat\_1\ X0)) \wedge ((v4\_relat\_2\ (k4\_relat\_1\ X0)) \wedge (v8\_relat\_2\ (k4\_relat\_1\ X0)))) \tag{4}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0) \Rightarrow ((\neg v2\_struct\_0\ (k13\_matrix\_2\ X0)) \wedge (v15\_algstr\_0\ (k13\_matrix\_2\ X0))) \tag{5}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v1\_relat\_1\ (k1\_finseq\_2\ X0))\wedge((v1\_funct\_1\ (k1\_finseq\_2\ X0))\wedge((v3\_card\_1\ (k1\_finseq\_2\ X0)\ X0)\wedge(v1\_finseq\_1\ (k1\_finseq\_2\ X0))))) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_partfun1\ (k6\_partfun1\ X0)\ X0)\wedge(m1\_subset\_1\ (k6\_partfun1\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0))) \tag{7}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow((v15\_algstr\_0\ (k13\_matrix\_2\ X0))\wedge(l3\_algstr\_0\ (k13\_matrix\_2\ X0))) \tag{8}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.(X1 = k12\_matrix\_2\ X0)\Leftrightarrow(\forall X2.(X2 \in X1)\Leftrightarrow((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ (k2\_finseq\_1\ X0)\ (k2\_finseq\_1\ X0))\wedge((v3\_funct\_2\ X2\ (k2\_finseq\_1\ X0)\ (k2\_finseq\_1\ X0))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_finseq\_1\ X0)\ (k2\_finseq\_1\ X0))))))))) \tag{9}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(k1\_finseq\_2\ X0 = k6\_partfun1\ (k2\_finseq\_1\ X0)) \tag{10}$$

Assume the following.

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(\forall X1.((v15\_algstr\_0\ X1)\wedge(l3\_algstr\_0\ X1))\Rightarrow((X1 = k13\_matrix\_2\ X0)\Leftrightarrow((u1\_struct\_0\ X1 = k12\_matrix\_2\ X0)\wedge(\forall X2.(m1\_matrix\_2\ X2\ (k12\_matrix\_2\ X0))\Rightarrow(\forall X3.(m1\_matrix\_2\ X3\ (k12\_matrix\_2\ X0))\Rightarrow(k1\_binop\_1\ (u2\_algstr\_0\ X1)\ X2\ X3 = k1\_partfun1\ (k2\_finseq\_1\ (k11\_matrix\_2\ (k12\_matrix\_2\ X0)))\ (k2\_finseq\_1\ (k11\_matrix\_2\ (k12\_matrix\_2\ X0)))\ (k2\_finseq\_1\ (k11\_matrix\_2\ (k12\_matrix\_2\ X0)))\ (k2\_finseq\_1\ (k11\_matrix\_2\ (k12\_matrix\_2\ X0)))\ X2\ X3)))))) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)))\Rightarrow(((v1\_relat\_2\ X1)\wedge((v1\_funct\_1\ X1)\wedge((v1\_partfun1\ X1\ X0)\wedge(v1\_funct\_2\ X1\ X0\ X0))))\Rightarrow((v1\_funct\_1\ X1)\wedge((v1\_funct\_2\ X1\ X0\ X0)\wedge(v3\_funct\_2\ X1\ X0\ X0)))) \tag{12}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v3\_relat\_2\ X0)\wedge(v8\_relat\_2\ X0)))\Rightarrow ((v1\_relat\_1\ X0)\wedge(v1\_relat\_2\ X0)) \tag{13}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow((v1\_partfun1\ X2\ X0)\Rightarrow(v1\_funct\_2\ X2\ X0\ X1)) \tag{14}$$

Assume the following.

$$\forall X0.(l3\_algstr\_0\ X0)\Rightarrow((v15\_algstr\_0\ X0)\Rightarrow(X0 = g3\_algstr\_0\ (u1\_struct\_0\ X0)\ (u2\_algstr\_0\ X0))) \tag{15}$$

Theorem 1

$$\forall X0.(v7\_ordinal1\ X0)\Rightarrow(m1\_subset\_1\ (k1\_finseq\_2\ X0)\ (u1\_struct\_0\ (k13\_matrix\_2\ X0)))$$