

## t20\_matrix14

(TMWiawqPE7kznnpfU8XbBMqALwnkZ9FJHVx)

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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  $v2\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v3\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v4\_rlvect\_1 : \iota \Rightarrow o$  be given. Let  $v3\_group\_1 : \iota \Rightarrow o$  be given. Let  $v5\_group\_1 : \iota \Rightarrow o$  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  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k13\_fvsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_matrix14 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $m2\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k12\_fvsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l2\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $k4\_rlvect\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $m1\_finseq\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $l2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $k1\_matrix14 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l3\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $k11\_fvsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $l5\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $l4\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $l4\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l3\_struct\_0 : \iota \Rightarrow o$  be given. Let  $l1\_algstr\_0 : \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Rightarrow (m2\_finseq\_2 X1 X0 (k4\_finseq\_2 (k3\_finseq\_1 X1) X0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \neg (X0 \in X1) \wedge ((m1\_subset\_1 X1 (k1\_zfmisc\_1 X2)) \wedge (v1\_xboole\_0 X2)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.((\neg v2\_struct\_0 \\ X1) \wedge ((\neg v6\_struct\_0 X1) \wedge ((v13\_algstr\_0 X1) \wedge ((v33\_algstr\_0 X1) \wedge \\ ((v2\_rlvect\_1 X1) \wedge ((v3\_rlvect\_1 X1) \wedge ((v4\_rlvect\_1 X1) \wedge ((v3\_group\_1 \\ X1) \wedge ((v5\_group\_1 X1) \wedge ((v4\_vectsp\_1 X1) \wedge ((v5\_vectsp\_1 X1) \wedge ( \\ l6\_algstr\_0 X1)))))))))) \Rightarrow (\forall X2.(m2\_finseq\_2 X2 (u1\_struct\_0 \\ X1) (k4\_finseq\_2 X0 (u1\_struct\_0 X1))) \Rightarrow (k12\_fvsun\_1 X0 X1 X2 (k5\_finseq\_2 \\ (u1\_struct\_0 X1) X0 (k4\_struct\_0 X1)) = k5\_finseq\_2 (u1\_struct\_0 \\ X1) X0 (k4\_struct\_0 X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.(m1\_subset\_1 X0 k5\_numbers) \Rightarrow (\forall X1.((\neg v2\_struct\_0 \\ X1) \wedge ((v13\_algstr\_0 X1) \wedge ((v3\_rlvect\_1 X1) \wedge ((v4\_rlvect\_1 X1) \wedge \\ (l2\_algstr\_0 X1)))))) \Rightarrow (k4\_rlvect\_1 X1 (k5\_finseq\_2 (u1\_struct\_0 \\ X1) X0 (k4\_struct\_0 X1)) = k4\_struct\_0 X1) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} ((v2\_xxreal\_0 np\_1) \wedge (m2\_subset\_1 np\_1 k1\_numbers k5\_numbers)) \wedge \\ ((m1\_subset\_1 np\_1 k5\_numbers) \wedge (m1\_subset\_1 np\_1 k1\_numbers)) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge \\ (m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2.(m2\_subset\_1 \\ X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_2 X1 X0) \Rightarrow (\forall X2.(m2\_finseq\_2 \\ X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (9)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (10)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(((\neg v2\_struct\_0 X0) \wedge (l2\_struct\_0 X0)) \wedge \\ (m1\_subset\_1 X1 k5\_numbers)) \Rightarrow (k2\_matrix14 X0 X1 = k1\_matrix14 \\ X0 X1) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.((m1\_subset\_1 X0 \quad k5\_numbers)\wedge((\neg v2\_struct\_0 X1)\wedge(l3\_algstr\_0 X1))\wedge((m1\_subset\_1 X2 (k4\_finseq\_2 X0 (u1\_struct\_0 X1)))\wedge(m1\_subset\_1 X3 (k4\_finseq\_2 X0 (u1\_struct\_0 X1))))))\Rightarrow(k12\_fvs\_sum\_1 X0 X1 X2 X3 = k11\_fvs\_sum\_1 X1 X2 X3) \quad (12)$$

Assume the following.

$$(\neg v1\_xboole\_0 k4\_ordinal1)\wedge(v3\_ordinal1 k4\_ordinal1) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0)\Rightarrow((v1\_funct\_1 X1)\wedge((v1\_finseq\_1 X1)\wedge(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X0)))))) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1 X1 X0)\Rightarrow((v1\_relat\_1 X1)\wedge((v1\_funct\_1 X1)\wedge(v1\_finseq\_1 X1))) \quad (15)$$

Assume the following.

$$\forall X0.(l6\_algstr\_0 X0)\Rightarrow((l2\_algstr\_0 X0)\wedge(l5\_algstr\_0 X0)) \quad (16)$$

Assume the following.

$$\forall X0.(l5\_algstr\_0 X0)\Rightarrow((l4\_algstr\_0 X0)\wedge(l4\_struct\_0 X0)) \quad (17)$$

Assume the following.

$$\forall X0.(l4\_algstr\_0 X0)\Rightarrow((l3\_struct\_0 X0)\wedge(l3\_algstr\_0 X0)) \quad (18)$$

Assume the following.

$$\forall X0.(l2\_algstr\_0 X0)\Rightarrow((l2\_struct\_0 X0)\wedge(l1\_algstr\_0 X0)) \quad (19)$$

Assume the following.

$$m1\_subset\_1 k5\_numbers (k1\_zfmisc\_1 k1\_numbers) \quad (20)$$

Assume the following.

$$\forall X0.\forall X1.(v7\_ordinal1 X0)\Rightarrow(m1\_finseq\_2 (k4\_finseq\_2 X0 X1) X1) \quad (21)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0)\wedge((v1\_funct\_1 X0)\wedge(v1\_finseq\_1 X0)))\Rightarrow(m2\_subset\_1 (k3\_finseq\_1 X0) k1\_numbers k5\_numbers) \quad (22)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge (l2\_struct\_0 X0)) \wedge \\ & (m1\_subset\_1 X1 k5\_numbers)) \Rightarrow (m2\_finseq\_2 (k2\_matrix14 X0 X1) \\ & (u1\_struct\_0 X0) (k4\_finseq\_2 X1 (u1\_struct\_0 X0))) \end{aligned} \quad (23)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (((\neg v2\_struct\_0 X0) \wedge (l2\_struct\_0 X0)) \wedge \\ & (m1\_subset\_1 X1 k5\_numbers)) \Rightarrow (m2\_finseq\_1 (k1\_matrix14 X0 X1) \\ & (u1\_struct\_0 X0)) \end{aligned} \quad (24)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l6\_algstr\_0 X0)) \Rightarrow (\forall X1. \\ & (m2\_finseq\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (\forall X2. (m2\_finseq\_1 X2 \\ & (u1\_struct\_0 X0)) \Rightarrow (k13\_fvsu1 X0 X1 X2 = k4\_rlvect\_1 X0 (k11\_fvsu1 \\ & X0 X1 X2)))) \end{aligned} \quad (25)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge (l2\_struct\_0 X0)) \Rightarrow (\forall X1. \\ & (m1\_subset\_1 X1 k5\_numbers) \Rightarrow (k1\_matrix14 X0 X1 = k5\_finseq\_2 ( \\ & u1\_struct\_0 X0) X1 (k4\_struct\_0 X0))) \end{aligned} \quad (26)$$

Assume the following.

$$\forall X0. (m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \quad (27)$$

**Theorem 1**

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((\neg v6\_struct\_0 X0) \wedge ((v13\_algstr\_0 \\ & X0) \wedge ((v33\_algstr\_0 X0) \wedge ((v2\_rlvect\_1 X0) \wedge ((v3\_rlvect\_1 X0) \wedge \\ & ((v4\_rlvect\_1 X0) \wedge ((v3\_group\_1 X0) \wedge ((v5\_group\_1 X0) \wedge ((v4\_vectsp\_1 \\ & X0) \wedge ((v5\_vectsp\_1 X0) \wedge (l6\_algstr\_0 X0)))))))))) \Rightarrow (\forall X1. \\ & (m2\_finseq\_1 X1 (u1\_struct\_0 X0)) \Rightarrow (k13\_fvsu1 X0 X1 (k2\_matrix14 \\ & X0 (k3\_finseq\_1 X1)) = k4\_struct\_0 X0)) \end{aligned}$$