

t38\_matrixc1  
(TMGdZpVZ8QKLs4iz9n4UjFec7Fj56EbJUdo)

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Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k9\_matrixc1 : \iota \Rightarrow \iota$  be given. Let  $k14\_rvsum\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_matrixc1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_numbers : \iota$  be given. Let  $k1\_finseqop : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k29\_binop\_2 : \iota$  be given. Let  $k35\_binop\_2 : \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  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  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v3\_membered : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v3\_valued\_0 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2\_finseq\_1 X0 k2\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_1 \\ & X1 k2\_numbers) \Rightarrow (\forall X2.(m2\_finseq\_1 X2 k1\_numbers) \Rightarrow (\forall X3. \\ & (m2\_finseq\_1 X3 k1\_numbers) \Rightarrow (((X0 = X2) \wedge ((X1 = X3) \wedge (k3\_finseq\_1 \\ & X0 = k3\_finseq\_1 X3)))) \Rightarrow (k1\_finseqop k2\_numbers k2\_numbers k2\_numbers \\ & k29\_binop\_2 X0 X1 = k1\_finseqop k1\_numbers k1\_numbers k1\_numbers \\ & k35\_binop\_2 X2 X3)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \tag{2}$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & ((\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge ((\neg v1\_xboole\_0 X2) \wedge ( \\ & ((v1\_funct\_1 X3) \wedge ((v1\_funct\_2 X3 (k2\_zfmisc\_1 X0 X1) X2) \wedge (m1\_subset\_1 \\ & X3 (k1\_zfmisc\_1 (k2\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1) X2)))))) \wedge ((m1\_finseq\_1 \\ & X4 X0) \wedge (m1\_finseq\_1 X5 X1)))))) \Rightarrow (k1\_finseqop X0 X1 X2 X3 X4 X5 = k3\_funcop\_1 \\ & X3 X4 X5) \end{aligned} \tag{4}$$

Assume the following.

$$v3\_membered\ k1\_numbers \quad (5)$$

Assume the following.

$$\neg v1\_xboole\_0\ k1\_numbers \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(m2\_finseq\_1\ X1\ X0)\Rightarrow((v1\_funct\_1\ X1)\wedge((v1\_finseq\_1\ X1)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ X0)))))) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_finseq\_1\ X1\ X0)\Rightarrow((v1\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge(v1\_finseq\_1\ X1))) \quad (8)$$

Assume the following.

$$\forall X0.(m1\_finseq\_1\ X0\ k1\_numbers)\Rightarrow(m2\_finseq\_1\ (k9\_matrixc1\ X0)\ k2\_numbers) \quad (9)$$

Assume the following.

$$(v1\_funct\_1\ k35\_binop\_2)\wedge((v1\_funct\_2\ k35\_binop\_2\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)\ k1\_numbers)\wedge(m1\_subset\_1\ k35\_binop\_2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (k2\_zfmisc\_1\ k1\_numbers\ k1\_numbers)\ k1\_numbers)))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge((v3\_valued\_0\ X0)\wedge(v1\_finseq\_1\ X0))))\wedge((v1\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge((v3\_valued\_0\ X1)\wedge(v1\_finseq\_1\ X1))))))\Rightarrow(m2\_finseq\_1\ (k14\_rvsum\_1\ X0\ X1)\ k1\_numbers) \quad (11)$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge((v3\_valued\_0\ X0)\wedge(v1\_finseq\_1\ X0))))\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v1\_funct\_1\ X1)\wedge((v3\_valued\_0\ X1)\wedge(v1\_finseq\_1\ X1))))\Rightarrow(k14\_rvsum\_1\ X0\ X1 = k3\_funcop\_1\ k35\_binop\_2\ X0\ X1)) \quad (12)$$

Assume the following.

$$\forall X0.(m2\_finseq\_1\ X0\ k1\_numbers)\Rightarrow(k9\_matrixc1\ X0 = X0) \quad (13)$$

Assume the following.

$$\forall X0.(m2\_finseq\_1 X0 k2\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_1 X1 k2\_numbers) \Rightarrow (k5\_matrixc1 X0 X1 = k1\_finseqop k2\_numbers k2\_numbers k2\_numbers k29\_binop\_2 X0 X1)) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((m1\_finseq\_1 X0 k2\_numbers) \wedge (m1\_finseq\_1 X1 k2\_numbers)) \Rightarrow (k5\_matrixc1 X0 X1 = k5\_matrixc1 X1 X0) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.(((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0) \wedge (v3\_valued\_0 X0) \wedge (v1\_finseq\_1 X0))) \wedge ((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1) \wedge (v3\_valued\_0 X1) \wedge (v1\_finseq\_1 X1))) \Rightarrow (k14\_rvsum\_1 X0 X1 = k14\_rvsum\_1 X1 X0) \quad (16)$$

Assume the following.

$$\forall X0.\forall X1.(v3\_membered X1) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 (k2\_zfmisc\_1 X0 X1))) \Rightarrow (v3\_valued\_0 X2)) \quad (17)$$

**Theorem 1**

$$\forall X0.(m2\_finseq\_1 X0 k1\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_1 X1 k1\_numbers) \Rightarrow ((k3\_finseq\_1 X0 = k3\_finseq\_1 X1) \Rightarrow (k9\_matrixc1 (k14\_rvsum\_1 X0 X1) = k5\_matrixc1 (k9\_matrixc1 X0) (k9\_matrixc1 X1))))$$