

t35\_matrixr2 (TMYw-  
EvA7bhMp2cQ1pPYefGDuT3d85wCDjsE)

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Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k11\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_3 : \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((v1\_relat\_1 X3) \wedge \\ & ((v1\_funct\_1 X3) \wedge (v1\_finseq\_1 X3))) \Rightarrow ((X3 = k11\_finseq\_1 X0 X1 \\ & X2) \Leftrightarrow ((k3\_finseq\_1 X3 = np\_3) \wedge ((k1\_funct\_1 X3 np\_1 = X0) \wedge ((k1\_funct\_1 \\ & X3 np\_2 = X1) \wedge (k1\_funct\_1 X3 np\_3 = X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 k5\_numbers) \Rightarrow \\ & (\forall X2. (m2\_finseq\_1 X2 X0) \Rightarrow (\forall X3. (m2\_finseq\_1 X3 X0) \Rightarrow \\ & (\forall X4. (m2\_finseq\_1 X4 X0) \Rightarrow (((k3\_finseq\_1 X2 = X1) \wedge ((k3\_finseq\_1 \\ & X3 = X1) \wedge (k3\_finseq\_1 X4 = X1)))) \Rightarrow (m1\_matrix\_1 (k11\_finseq\_1 X2 \\ & X3 X4) X0 np\_3 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 np\_3) \wedge (m2\_subset\_1 np\_3 k1\_numbers k5\_numbers)) \wedge \\ & ((m1\_subset\_1 np\_3 k5\_numbers) \wedge (m1\_subset\_1 np\_3 k1\_numbers)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1\_xboole\_0 X0) \wedge \\ & ((m1\_subset\_1 X1 X0) \wedge ((m1\_subset\_1 X2 X0) \wedge (m1\_subset\_1 X3 X0)))) \Rightarrow \\ & (k3\_finseq\_4 X0 X1 X2 X3 = k11\_finseq\_1 X1 X2 X3) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(v1\_relat\_1 (k11\_finseq\_1 X0 X1 X2))\wedge(v1\_funct\_1 (k11\_finseq\_1 X0 X1 X2)) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.v1\_finseq\_1 (k11\_finseq\_1 X0 X1 X2) \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0 X0)\wedge \\ & ((m1\_subset\_1 X1 X0)\wedge((m1\_subset\_1 X2 X0)\wedge(m1\_subset\_1 X3 X0))))\Rightarrow \\ & (m2\_finseq\_1 (k3\_finseq\_4 X0 X1 X2 X3) X0) \end{aligned} \quad (7)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0)\Rightarrow(\forall X1.(m1\_subset\_1 X1 X0)\Rightarrow \\ & (\forall X2.(m1\_subset\_1 X2 X0)\Rightarrow(\forall X3.(m1\_subset\_1 X3 X0)\Rightarrow \\ & (\forall X4.(m1\_subset\_1 X4 X0)\Rightarrow(\forall X5.(m1\_subset\_1 X5 X0)\Rightarrow \\ & (\forall X6.(m1\_subset\_1 X6 X0)\Rightarrow(\forall X7.(m1\_subset\_1 X7 X0)\Rightarrow \\ & (\forall X8.(m1\_subset\_1 X8 X0)\Rightarrow(\forall X9.(m1\_subset\_1 X9 X0)\Rightarrow \\ & (m1\_matrix\_1 (k11\_finseq\_1 (k3\_finseq\_4 X0 X1 X2 X3) (k3\_finseq\_4 \\ & X0 X4 X5 X6) (k3\_finseq\_4 X0 X7 X8 X9)) X0 np\_3 np\_3)))))))))) \end{aligned}$$