

## t13\_matrix\_2

(TMNrwEGwJzZ137ZzjsDxBnfYC5Xf4oR2vrW)

October 27, 2020

Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_matrix\_1 : \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_finseq\_2 : \iota \Rightarrow \iota$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_matrix\_1 : \iota \Rightarrow \iota$  be given. Let  $k4\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_matrix\_1 : \iota \Rightarrow \iota$  be given. Let  $k3\_matrix\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. ((v1\_matrix\_1 X1) \wedge \\ & (m2\_finseq\_1 X1 (k3\_finseq\_2 X0))) \Rightarrow ((\neg r1\_xxreal\_0 (k1\_matrix\_1 \\ & X1) k6\_numbers) \Rightarrow ((k3\_finseq\_1 (k4\_matrix\_1 X0 X1) = k1\_matrix\_1 \\ & X1) \wedge (k1\_matrix\_1 (k4\_matrix\_1 X0 X1) = k3\_finseq\_1 X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1\_xboole\_0 X0) \wedge ((v1\_matrix\_1 X1) \wedge \\ & (m1\_finseq\_1 X1 (k3\_finseq\_2 X0)))) \Rightarrow ((v1\_matrix\_1 (k4\_matrix\_1 \\ & X0 X1)) \wedge (m2\_finseq\_1 (k4\_matrix\_1 X0 X1) (k3\_finseq\_2 X0))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. ((v1\_matrix\_1 X1) \wedge \\ & (m2\_finseq\_1 X1 (k3\_finseq\_2 X0))) \Rightarrow (\forall X2. ((v1\_matrix\_1 \\ & X2) \wedge (m2\_finseq\_1 X2 (k3\_finseq\_2 X0))) \Rightarrow ((X2 = k4\_matrix\_1 X0 X1) \Leftrightarrow \\ & ((k3\_finseq\_1 X2 = k1\_matrix\_1 X1) \wedge ((\forall X3. (v7\_ordinal1 \\ & X3) \Rightarrow (\forall X4. (v7\_ordinal1 X4) \Rightarrow ((k4\_tarski X3 X4 \in k2\_matrix\_1 \\ & X2) \Leftrightarrow (k4\_tarski X4 X3 \in k2\_matrix\_1 X1)))) \wedge (\forall X3. (v7\_ordinal1 \\ & X3) \Rightarrow (\forall X4. (v7\_ordinal1 X4) \Rightarrow ((k4\_tarski X4 X3 \in k2\_matrix\_1 \\ & X1) \Rightarrow (k3\_matrix\_1 X0 X2 X3 X4 = k3\_matrix\_1 X0 X1 X4 X3)))))))))) \end{aligned} \quad (4)$$

**Theorem 1**

$$\begin{aligned} \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.((v1\_matrix\_1 X1) \wedge \\ (m2\_finseq\_1 X1 (k3\_finseq\_2 X0))) \Rightarrow (\neg(\neg r1\_xxreal\_0 (k3\_finseq\_1 \\ X1) k6\_numbers) \wedge (\neg r1\_xxreal\_0 (k1\_matrix\_1 X1) k6\_numbers) \wedge \\ (k4\_matrix\_1 X0 (k4\_matrix\_1 X0 X1) \neq X1)))) \end{aligned}$$