

t33_matrixc1 (TMb6UCMvu4LuaKe3xrZkjP4GwnytgzeLqhv)

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Let $m2_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_numbers : \iota$ be given. Let $k3_finseq_1 : \iota \Rightarrow \iota$ be given. Let $k5_matrixc1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_seq_4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m1_finseq_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 k2_numbers) \Rightarrow (\forall X1.(m2_finseq_1 \\ & X1 k2_numbers) \Rightarrow (\forall X2.(m2_finseq_1 X2 k2_numbers) \Rightarrow (((k3_finseq_1 \\ & X0 = k3_finseq_1 X1) \wedge (k3_finseq_1 X1 = k3_finseq_1 X2)) \Rightarrow (k5_matrixc1 \\ & (k10_seq_4 X0 X1) X2 = k10_seq_4 (k5_matrixc1 X0 X2) (k5_matrixc1 \\ & X1 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.(m2_finseq_1 X1 X0) \Leftrightarrow (m1_finseq_1 X1 X0) \tag{2}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((m1_finseq_1 X0 k2_numbers) \wedge (m1_finseq_1 \\ & X1 k2_numbers)) \Rightarrow (m2_finseq_1 (k10_seq_4 X0 X1) k2_numbers) \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((m1_finseq_1 X0 k2_numbers) \wedge (m1_finseq_1 \\ & X1 k2_numbers)) \Rightarrow (k5_matrixc1 X0 X1 = k5_matrixc1 X1 X0) \end{aligned} \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0.(m2_finseq_1 X0 k2_numbers) \Rightarrow (\forall X1.(m2_finseq_1 \\ & X1 k2_numbers) \Rightarrow (\forall X2.(m2_finseq_1 X2 k2_numbers) \Rightarrow (((k3_finseq_1 \\ & X0 = k3_finseq_1 X1) \wedge (k3_finseq_1 X1 = k3_finseq_1 X2)) \Rightarrow (k5_matrixc1 \\ & X0 (k10_seq_4 X1 X2) = k10_seq_4 (k5_matrixc1 X0 X1) (k5_matrixc1 \\ & X0 X2)))))) \end{aligned}$$