

## t35\_matrixc1

(TMaWSVpthTJRyG1W1KCUKENKH5TzZWffYnZ)

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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  $k9\_seq\_4 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2\_finseq\_1 X0 k2\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_1 \\ & X1 k2\_numbers) \Rightarrow (\forall X2.(m2\_finseq\_1 X2 k2\_numbers) \Rightarrow (((k3\_finseq\_1 \\ & X0 = k3\_finseq\_1 X1) \wedge (k3\_finseq\_1 X1 = k3\_finseq\_1 X2)) \Rightarrow (k5\_matrixc1 \\ & X0 (k9\_seq\_4 X1 X2) = k9\_seq\_4 (k5\_matrixc1 X0 X1) (k5\_matrixc1 X0 \\ & X2)))))) \end{aligned} \tag{1}$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((m1\_finseq\_1 X0 k2\_numbers) \wedge (m1\_finseq\_1 X1 k2\_numbers)) \Rightarrow (m2\_finseq\_1 (k9\_seq\_4 X0 X1) k2\_numbers) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((m1\_finseq\_1 X0 k2\_numbers) \wedge (m1\_finseq\_1 X1 k2\_numbers)) \Rightarrow (k5\_matrixc1 X0 X1 = k5\_matrixc1 X1 X0) \tag{4}$$

### Theorem 1

$$\begin{aligned} & \forall X0.(m2\_finseq\_1 X0 k2\_numbers) \Rightarrow (\forall X1.(m2\_finseq\_1 \\ & X1 k2\_numbers) \Rightarrow (\forall X2.(m2\_finseq\_1 X2 k2\_numbers) \Rightarrow (((k3\_finseq\_1 \\ & X0 = k3\_finseq\_1 X1) \wedge (k3\_finseq\_1 X1 = k3\_finseq\_1 X2)) \Rightarrow (k5\_matrixc1 \\ & (k9\_seq\_4 X0 X1) X2 = k9\_seq\_4 (k5\_matrixc1 X0 X2) (k5\_matrixc1 X1 \\ & X2)))))) \end{aligned}$$