

# l3\_matrix\_9 (TM- GrkpGU3N2hrCCbLKjEqSd1fXLey5KYQZd)

October 27, 2020

Let  $k2\_finseq\_4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k12\_matrix\_2 : \iota \Rightarrow \iota$  be given. Let  $k2\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  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. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k7\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_finseq\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$k12\_matrix\_2 \ np\_2 = k2\_tarski \ (k10\_finseq\_1 \ np\_1 \ np\_2) \ (k10\_finseq\_1 \ np\_2 \ np\_1) \tag{1}$$

Assume the following.

$$\begin{aligned} & ((v2\_xxreal\_0 \ np\_2) \wedge (m2\_subset\_1 \ np\_2 \ k1\_numbers \ k5\_numbers)) \wedge \\ & ((m1\_subset\_1 \ np\_2 \ k5\_numbers) \wedge (m1\_subset\_1 \ np\_2 \ k1\_numbers)) \end{aligned} \tag{2}$$

Assume the following.

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

Assume the following.

$$k5\_numbers = k4\_ordinal1 \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1\_xboole\_0 \ X0) \wedge ((m1\_subset\_1 \\ & X1 \ X0) \wedge (m1\_subset\_1 \ X2 \ X0))) \Rightarrow (k2\_finseq\_4 \ X0 \ X1 \ X2 = k10\_finseq\_1 \\ & X1 \ X2) \end{aligned} \tag{5}$$

Assume the following.

$$(\neg v1\_xboole\_0 \ k4\_ordinal1) \wedge (v3\_ordinal1 \ k4\_ordinal1) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.k10\_finseq\_1 X0 X1 = k7\_finseq\_1 (k9\_finseq\_1 X0) (k9\_finseq\_1 X1) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2\_tarSKI X0 X1) \Leftrightarrow (\forall X3. (X3 \in X2) \Leftrightarrow ((X3 = X0) \vee (X3 = X1))) \quad (8)$$

**Theorem 1**  $k2\_finseq\_4 k5\_numbers np\_2 np\_1 \in k12\_matrix\_2 np\_2$ .