

t5\_yellow15  
(TMSx8bBypYRb5R32zRF3sfrnronhoUJbitX)

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Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k9\_setfam\_1 : \iota \Rightarrow \iota$  be given. Let  $k6\_margrel1 : \iota$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_margrel1 : \iota$  be given. Let  $k1\_yellow15 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k2\_xboolean : \iota$  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  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k14\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $np\_1 : \iota$  be given. Let  $k4\_tarSKI : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (1)$$

Assume the following.

$$k8\_margrel1 = k2\_xboolean \quad (2)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow (k4\_finseq\_1 X0 = k9\_xtuple\_0 X0) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Rightarrow ((v1\_funct\_1 X1) \wedge ((v1\_finseq\_1 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers X0)))))) \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_finseq\_1 X1 X0) \Rightarrow ((v1\_relat\_1 X1) \wedge ((v1\_funct\_1 X1) \wedge (v1\_finseq\_1 X1))) \quad (5)$$

Assume the following.

$$\forall X0.((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow (m2\_subset\_1 (k3\_finseq\_1 X0) k1\_numbers k5\_numbers) \quad (6)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1\_finseq\_1 X1 (k9\_setfam\_1 X0)) \wedge (m1\_finseq\_1 X2 k6\_margrel1)) \Rightarrow (m2\_finseq\_1 (k1\_yellow15 X0 X1 X2) (k9\_setfam\_1 X0)) \quad (7)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. ((X0 = X1) \Rightarrow (k14\_funcop\_1 X0 X1 X2 X3 = X2)) \wedge ((X0 \neq X1) \Rightarrow (k14\_funcop\_1 X0 X1 X2 X3 = X3)) \quad (8)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge ((v1\_funct\_1 X0) \wedge (v1\_finseq\_1 X0))) \Rightarrow (\forall X1. (m2\_subset\_1 X1 k1\_numbers k5\_numbers) \Rightarrow ((X1 = k3\_finseq\_1 X0) \Leftrightarrow (k2\_finseq\_1 X1 = k9\_xtuple\_0 X0))) \quad (9)$$

Assume the following.

$$k2\_xboolean = np\_1 \quad (10)$$

Assume the following.

$$\forall X0. ((v1\_relat\_1 X0) \wedge (v1\_funct\_1 X0)) \Rightarrow (\forall X1. \forall X2. ((X1 \in k9\_xtuple\_0 X0) \Rightarrow ((X2 = k1\_funct\_1 X0 X1) \Leftrightarrow (k4\_tarski X1 X2 \in X0))) \wedge ((\neg X1 \in k9\_xtuple\_0 X0) \Rightarrow ((X2 = k1\_funct\_1 X0 X1) \Leftrightarrow (X2 = k1\_xboole\_0)))) \quad (11)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 (k9\_setfam\_1 X0)) \Rightarrow (\forall X2. (m2\_finseq\_1 X2 k6\_margrel1) \Rightarrow (\forall X3. (m2\_finseq\_1 X3 (k9\_setfam\_1 X0)) \Rightarrow ((X3 = k1\_yellow15 X0 X1 X2) \Leftrightarrow ((k3\_finseq\_1 X3 = k3\_finseq\_1 X1) \wedge (\forall X4. (v7\_ordinal1 X4) \Rightarrow ((X4 \in k4\_finseq\_1 X1) \Rightarrow (k1\_funct\_1 X3 X4 = k14\_funcop\_1 (k1\_funct\_1 X2 X4) k8\_margrel1 (k1\_funct\_1 X1 X4) (k6\_subset\_1 X0 (k1\_funct\_1 X1 X4)))))))))) \quad (12)$$

### Theorem 1

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 (k9\_setfam\_1 X0)) \Rightarrow (\forall X2. (m2\_finseq\_1 X2 k6\_margrel1) \Rightarrow (\forall X3. (v7\_ordinal1 X3) \Rightarrow ((k1\_funct\_1 X2 X3 = k8\_margrel1) \Rightarrow (k1\_funct\_1 (k1\_yellow15 X0 X1 X2) X3 = k1\_funct\_1 X1 X3))))$$