

## t6\_yellow15

(TMN8kgWbWqKfVAg8NY4QLzJzpbHXzg7JfoW)

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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  $k4\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_margrel1 : \iota$  be given. Let  $k1\_yellow15 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_xreal\_0 : \iota \Rightarrow o$  be given. Let  $np\_1 : \iota$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_numbers : \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k8\_margrel1 : \iota$  be given. Let  $k2\_xboolean : \iota$  be given. Let  $k1\_xboolean : \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_finset\_1 : \iota \Rightarrow o$  be given. Let  $v3\_card\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $v2\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $k14\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k3\_finseq\_1 : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v1\_zfmisc\_1 : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & ((v2\_xreal\_0 \ np\_1) \wedge (m2\_subset\_1 \ np\_1 \ k1\_numbers \ k5\_numbers)) \wedge \\ & ((m1\_subset\_1 \ np\_1 \ k5\_numbers) \wedge (m1\_subset\_1 \ np\_1 \ k1\_numbers)) \end{aligned} \quad (1)$$

Assume the following.

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

Assume the following.

$$k8\_margrel1 = k2\_xboolean \quad (3)$$

Assume the following.

$$k7\_margrel1 = k1\_xboolean \quad (4)$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \quad (5)$$

Assume the following.

$$k5\_numbers = k4\_ordinal1 \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.(v7\_ordinal1 X0) \Rightarrow (\exists X1.(v1\_relat\_1 X1) \wedge ((v4\_relat\_1 \\ X1 k5\_numbers) \wedge ((v1\_funct\_1 X1) \wedge ((v1\_finset\_1 X1) \wedge ((v3\_card\_1 \\ X1 X0) \wedge ((v1\_finseq\_1 X1) \wedge (v2\_finseq\_1 X1))))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((m1\_finseq\_1 X1 (k9\_setfam\_1 \\ X0)) \wedge (m1\_finseq\_1 X2 k6\_margrel1)) \Rightarrow (m2\_finseq\_1 (k1\_yellow15 \\ X0 X1 X2) (k9\_setfam\_1 X0)) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.\forall X3.((X0 = X1) \Rightarrow (k14\_funcop\_1 \\ X0 X1 X2 X3 = X2)) \wedge ((X0 \neq X1) \Rightarrow (k14\_funcop\_1 X0 X1 X2 X3 = X3)) \end{aligned} \quad (9)$$

Assume the following.

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

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m2\_finseq\_1 X1 (k9\_setfam\_1 X0)) \Rightarrow (\forall X2. \\ (m2\_finseq\_1 X2 k6\_margrel1) \Rightarrow (\forall X3.(m2\_finseq\_1 X3 (k9\_setfam\_1 \\ X0)) \Rightarrow ((X3 = k1\_yellow15 X0 X1 X2) \Leftrightarrow ((k3\_finseq\_1 X3 = k3\_finseq\_1 \\ X1) \wedge (\forall X4.(v7\_ordinal1 X4) \Rightarrow ((X4 \in k4\_finseq\_1 X1) \Rightarrow (k1\_funct\_1 \\ X3 X4 = k14\_funcop\_1 (k1\_funct\_1 X2 X4) k8\_margrel1 (k1\_funct\_1 \\ X1 X4) (k6\_subset\_1 X0 (k1\_funct\_1 X1 X4)))))))))) \end{aligned} \quad (11)$$

Assume the following.

$$k1\_xboolean = k6\_numbers \quad (12)$$

Assume the following.

$$\forall X0.(v3\_card\_1 X0 np\_1) \Rightarrow ((\neg v1\_xboole\_0 X0) \wedge (v1\_zfmisc\_1 X0)) \quad (13)$$

Assume the following.

$$\forall X0.(m1\_subset\_1 X0 k4\_ordinal1) \Rightarrow (v7\_ordinal1 X0) \quad (14)$$

Assume the following.

$$\forall X0.(v3\_card\_1 X0 k1\_xboole\_0) \Rightarrow (v1\_xboole\_0 X0) \quad (15)$$

**Theorem 1**

$$\begin{aligned} \forall X0.\forall X1.(m2\_finseq\_1 X1 (k9\_setfam\_1 X0)) \Rightarrow (\forall X2. \\ (m2\_finseq\_1 X2 k6\_margrel1) \Rightarrow (\forall X3.(v7\_ordinal1 X3) \Rightarrow ( \\ ((X3 \in k4\_finseq\_1 X1) \wedge (k1\_funct\_1 X2 X3 = k7\_margrel1)) \Rightarrow (k1\_funct\_1 \\ (k1\_yellow15 X0 X1 X2) X3 = k6\_subset\_1 X0 (k1\_funct\_1 X1 X3)))))) \end{aligned}$$