

## t122\_funct\_7

(TMQY7onFpqpH4yWGKbTF9YZu3aa2eNUqs2A)

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Let  $k1\_funct.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k13\_funct.7 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $v1\_relat.1 : \iota \Rightarrow o$  be given. Let  $v1\_funct.1 : \iota \Rightarrow o$  be given. Let  $k1\_funct.4 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_funct.4 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_xboole.0 : \iota \Rightarrow o$  be given. Let  $np.1 : \iota$  be given. Let  $k7\_funcop.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_funcop.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole.0 : \iota$  be given. Let  $k2\_zfmisc.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_tarSKI : \iota \Rightarrow \iota$  be given. Let  $m1\_subset.1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc.1 : \iota \Rightarrow \iota$  be given. Let  $k16\_funcop.1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_numbers : \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat.1 X0) \wedge (v1\_funct.1 X0)) \Rightarrow (\forall X1. \forall X2. \\ & \forall X3. \forall X4. (X1 \neq X2) \Rightarrow ((k1\_funct.1 (k1\_funct.4 X0 (k4\_funct.4 \\ & X1 X2 X3 X4)) X1 = X3) \wedge (k1\_funct.1 (k1\_funct.4 X0 (k4\_funct.4 X1 X2 \\ & X3 X4)) X2 = X4))) \end{aligned} \tag{1}$$

Assume the following.

$$\neg v1\_xboole.0 \ np.1 \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. k7\_funcop.1 X0 X1 = k2\_funcop.1 X0 X1 \tag{3}$$

Assume the following.

$$k6\_numbers = k1\_xboole.0 \tag{4}$$

Assume the following.

$$\forall X0. \forall X1. v1\_relat.1 (k2\_zfmisc.1 X0 X1) \tag{5}$$

Assume the following.

$$v1\_xboole.0 \ k1\_xboole.0 \tag{6}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (v1\_funct.1 (k7\_funcop.1 X0 X1)) \wedge ((v1\_funct.2 \\ & (k7\_funcop.1 X0 X1) X0 (k1\_tarSKI X1)) \wedge (m1\_subset.1 (k7\_funcop.1 \\ & X0 X1) (k1\_zfmisc.1 (k2\_zfmisc.1 X0 (k1\_tarSKI X1)))))) \end{aligned} \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.k16\_funcop\_1 X0 X1 = k7\_funcop\_1 (k1\_tarSKI X0) X1 \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.k4\_funct\_4 X0 X1 X2 \\ X3 = k1\_funct\_4 (k16\_funcop\_1 X0 X2) (k16\_funcop\_1 X1 X3) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.k2\_funcop\_1 X0 X1 = k2\_zfmisc\_1 X0 (k1\_tarSKI X1) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k13\_funct\_7 X0 X1 X2 = k1\_funct\_4 \\ (k7\_funcop\_1 k5\_numbers X2) (k4\_funct\_4 k6\_numbers np\_1 X0 X1) \quad (11)$$

**Theorem 1**

$$\forall X0.\forall X1.\forall X2.k1\_funct\_1 (k13\_funct\_7 X0 X1 \\ X2) k6\_numbers = X0$$