

# t32\_yellow14 (TMHCRUyExPYBZVMup- foXJ5j7hsbUNJ7MnQC)

October 27, 2020

Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_waybel18 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k7\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_card\_3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_yellow14 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_funcop\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  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  $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v4\_waybel\_3 : \iota \Rightarrow o$  be given. Let  $v1\_waybel18 : \iota \Rightarrow o$  be given. Let  $k4\_waybel18 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_waybel18 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $l1\_struct\_0 : \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. (X1 \in X0) \Rightarrow (k1\_funct\_1 (k2\_funcop\_1 X0 X2) X1 = X2) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1. (m1\_subset\_1 X1 X0) \Rightarrow \\ & (\forall X2. ((v1\_relat\_1 X2) \wedge ((v4\_relat\_1 X2 X0) \wedge ((v1\_funct\_1 X2) \wedge ((v1\_partfun1 X2 X0) \wedge ((v4\_waybel\_3 X2) \wedge (v1\_waybel18 X2)))))) \Rightarrow \\ & (\forall X3. (m1\_subset\_1 X3 (u1\_struct\_0 (k3\_waybel18 X0 X2))) \Rightarrow \\ & (k5\_card\_3 X1 (k2\_pre\_topc (k3\_waybel18 X0 X2) (k6\_domain\_1 (u1\_struct\_0 (k3\_waybel18 X0 X2)) X3)) = k2\_pre\_topc (k4\_waybel18 X0 X2 X1) (k6\_domain\_1 (u1\_struct\_0 (k4\_waybel18 X0 X2 X1)) (k5\_waybel18 X0 X2 X3 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. k7\_funcop\_1 X0 X1 = k2\_funcop\_1 X0 X1 \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0 X0)\wedge \\ & (((v1\_relat\_1 X1)\wedge((v4\_relat\_1 X1 X0)\wedge((v1\_funct\_1 X1)\wedge((v1\_partfun1 \\ & X1 X0)\wedge((v4\_waybel\_3 X1)\wedge(v1\_waybel18 X1))))))\wedge((m1\_subset\_1 \\ & X2 (u1\_struct\_0 (k3\_waybel18 X0 X1))\wedge(m1\_subset\_1 X3 X0))))\Rightarrow \\ & (k5\_waybel18 X0 X1 X2 X3 = k1\_funct\_1 X2 X3) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((\neg v1\_xboole\_0 X0)\wedge(((v1\_relat\_1 \\ & X1)\wedge((v4\_relat\_1 X1 X0)\wedge((v1\_funct\_1 X1)\wedge((v1\_partfun1 X1 X0)\wedge \\ & ((v4\_waybel\_3 X1)\wedge(v1\_waybel18 X1))))))\wedge(m1\_subset\_1 X2 X0)))\Rightarrow \\ & (k4\_waybel18 X0 X1 X2 = k1\_funct\_1 X1 X2) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1\_xboole\_0 X0)\wedge \\ & (((\neg v2\_struct\_0 X1)\wedge((v2\_pre\_topc X1)\wedge(l1\_pre\_topc X1)))\wedge( \\ & (m1\_subset\_1 X2 (u1\_struct\_0 (k3\_waybel18 X0 (k7\_funcop\_1 X0 X1))))\wedge \\ & (m1\_subset\_1 X3 X0))))\Rightarrow(k2\_yellow14 X0 X1 X2 X3 = k1\_funct\_1 X2 X3) \end{aligned} \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(l1\_pre\_topc X1)\Rightarrow(v1\_waybel18 (k2\_funcop\_1 X0 X1)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0 X1)\wedge(l1\_struct\_0 X1))\Rightarrow(v4\_waybel\_3 (k2\_funcop\_1 X0 X1)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.v1\_relat\_1 (k2\_zfmisc\_1 X0 X1) \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(v1\_relat\_1 (k2\_funcop\_1 X0 X1)\wedge((v4\_relat\_1 \\ & (k2\_funcop\_1 X0 X1) X0)\wedge((v1\_funct\_1 (k2\_funcop\_1 X0 X1))\wedge(v1\_partfun1 \\ & (k2\_funcop\_1 X0 X1) X0)))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.v4\_relat\_1 (k2\_funcop\_1 X0 X1) X0 \quad (12)$$

Assume the following.

$$\forall X0.(l1\_pre\_topc X0)\Rightarrow(l1\_struct\_0 X0) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.k2\_funcop\_1 X0 X1 = k2\_zfmisc\_1 X0 (k1\_tarSKI X1) \quad (14)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(\neg v1\_xboole\_0 X0) \Rightarrow (\forall X1.(m1\_subset\_1 X1 X0) \Rightarrow \\ & (\forall X2.((\neg v2\_struct\_0 X2) \wedge ((v2\_pre\_topc X2) \wedge (l1\_pre\_topc \\ & X2))) \Rightarrow (\forall X3.(m1\_subset\_1 X3 (u1\_struct\_0 (k3\_waybel18 \\ & X0 (k7\_funcop\_1 X0 X2)))) \Rightarrow (k5\_card\_3 X1 (k2\_pre\_topc (k3\_waybel18 \\ & X0 (k7\_funcop\_1 X0 X2)) (k6\_domain\_1 (u1\_struct\_0 (k3\_waybel18 \\ & X0 (k7\_funcop\_1 X0 X2)) X3) = k2\_pre\_topc X2 (k6\_domain\_1 (u1\_struct\_0 \\ & X2) (k2\_yellow14 X0 X2 X3 X1)))))) \end{aligned}$$