

## l9\_goboard6

(TMFLb8QqXV2nxkPnZfd9H62UUjEso6v9GB7)

October 27, 2020

Let  $v2\_pre\_topc : \iota \Rightarrow o$  be given. Let  $l1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $g1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $u1\_pre\_topc : \iota \Rightarrow \iota$  be given. Let  $k1\_tops\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_pre\_topc : \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow (\forall X1. \\ & ((v2\_pre\_topc X1) \wedge (l1\_pre\_topc X1)) \Rightarrow (\forall X2.(m1\_subset\_1 \\ & X2 (k1\_zfmisc\_1 (u1\_struct\_0 X0))) \Rightarrow (\forall X3.(m1\_subset\_1 \\ & X3 (k1\_zfmisc\_1 (u1\_struct\_0 X1))) \Rightarrow (((X2 = X3) \wedge (g1\_pre\_topc ( \\ & u1\_struct\_0 X0) (u1\_pre\_topc X0) = g1\_pre\_topc (u1\_struct\_0 X1) \\ & (u1\_pre\_topc X1))) \Rightarrow (k1\_tops\_1 X0 X2 = k1\_tops\_1 X1 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v2\_pre\_topc X0) \wedge (l1\_pre\_topc X0)) \Rightarrow ((v1\_pre\_topc \\ & (g1\_pre\_topc (u1\_struct\_0 X0) (u1\_pre\_topc X0))) \wedge (v2\_pre\_topc \\ & (g1\_pre\_topc (u1\_struct\_0 X0) (u1\_pre\_topc X0)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_pre\_topc X0) \Rightarrow (m1\_subset\_1 (u1\_pre\_topc X0) (k1\_zfmisc\_1 \\ & (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 \\ & X0))) \Rightarrow ((v1\_pre\_topc (g1\_pre\_topc X0 X1)) \wedge (l1\_pre\_topc (g1\_pre\_topc \\ & X0 X1))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.(l1\_pre\_topc X0) \Rightarrow ((v1\_pre\_topc X0) \Rightarrow (X0 = g1\_pre\_topc \\ & (u1\_struct\_0 X0) (u1\_pre\_topc X0))) \end{aligned} \quad (5)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((v2\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X0))\Rightarrow(\forall X1. \\ & (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\Rightarrow(\forall X2. \\ & (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (g1\_pre\_topc\ (u1\_struct\_0 \\ & X0)\ (u1\_pre\_topc\ X0))))))\Rightarrow((X1 = X2)\Rightarrow(k1\_tops\_1\ X0\ X1 = k1\_tops\_1 \\ & (g1\_pre\_topc\ (u1\_struct\_0\ X0)\ (u1\_pre\_topc\ X0))\ X2)))) \end{aligned}$$