

t23\_toprealb  
(TMcu7RUJohQcr5BiDRRPnmmZhR7nU94kqwM)

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Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k8\_toprealb : \iota \Rightarrow \iota$  be given. Let  $np\_2 : \iota$  be given. Let  $k11\_toprealb : \iota \Rightarrow \iota$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k4\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_tarski : \iota \Rightarrow \iota$  be given. Let  $k6\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_domain\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_pre\_topc : \iota \Rightarrow o$  be given. Let  $m1\_pre\_topc : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xboole\_0 X0) \Rightarrow (X0 = k1\_xboole\_0) \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X0 \in k4\_xboole\_0 X1 (k1\_tarski X2)) \Leftrightarrow ((X0 \in X1) \wedge (X0 \neq X2)) \quad (2)$$

Assume the following.

$$\forall X0.k4\_xboole\_0 k1\_xboole\_0 X0 = k1\_xboole\_0 \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1 X0 X1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.k6\_subset\_1 X0 X1 = k4\_xboole\_0 X0 X1 \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0 X0) \wedge (m1\_subset\_1 X1 X0)) \Rightarrow (k6\_domain\_1 X0 X1 = k1\_tarski X1) \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k8\_toprealb np\_2))) \Rightarrow \\ & ((v1\_pre\_topc (k11\_toprealb X0)) \wedge (m1\_pre\_topc (k11\_toprealb \\ & \quad X0) (k8\_toprealb np\_2))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k8\_toprealb np\_2))) \Rightarrow \\ & (\forall X1.((v1\_pre\_topc X1) \wedge (m1\_pre\_topc X1 (k8\_toprealb np\_2))) \Rightarrow \\ & ((X1 = k11\_toprealb X0) \Leftrightarrow (u1\_struct\_0 X1 = k6\_subset\_1 (u1\_struct\_0 \\ & \quad (k8\_toprealb np\_2)) (k6\_domain\_1 (u1\_struct\_0 (k8\_toprealb \\ & \quad \quad np\_2)) X0)))) \end{aligned} \quad (9)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(m1\_subset\_1 X0 (u1\_struct\_0 (k8\_toprealb np\_2))) \Rightarrow \\ & (\forall X1.(m1\_subset\_1 X1 (u1\_struct\_0 (k8\_toprealb np\_2))) \Rightarrow \\ & ((X0 \neq X1) \Rightarrow (m1\_subset\_1 X1 (u1\_struct\_0 (k11\_toprealb X0)))))) \end{aligned}$$