

t105\_aofa\_000  
(TMdMdD3Fffgftxi9bHJ25vF4B5LjgzszFG)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v2\_unialg\_1 : \iota \Rightarrow o$  be given. Let  $v3\_unialg\_1 : \iota \Rightarrow o$  be given. Let  $v4\_unialg\_1 : \iota \Rightarrow o$  be given. Let  $v3\_aofa\_000 : \iota \Rightarrow o$  be given. Let  $v4\_aofa\_000 : \iota \Rightarrow o$  be given. Let  $v5\_aofa\_000 : \iota \Rightarrow o$  be given. Let  $v6\_aofa\_000 : \iota \Rightarrow o$  be given. Let  $l1\_unialg\_1 : \iota \Rightarrow o$  be given. Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $m1\_aofa\_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $r5\_aofa\_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $r6\_aofa\_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_tarski : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k21\_aofa\_000 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X0 X1) \Rightarrow ((v1\_xboole\_0 X1) \vee (X0 \in X1)) \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_unialg\_1 X0) \wedge ((v3\_unialg\_1 X0) \wedge ((v4\_unialg\_1 X0) \wedge ((v3\_aofa\_000 X0) \wedge ((v4\_aofa\_000 X0) \wedge ((v5\_aofa\_000 X0) \wedge ((v6\_aofa\_000 X0) \wedge (l1\_unialg\_1 X0)))))))))) \Rightarrow \\ & (\forall X1. (\neg v1\_xboole\_0 X1) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 X1)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (\forall X4. \\ & (m1\_aofa\_000 X4 X0 X1 X2) \Rightarrow (\forall X5. (r6\_aofa\_000 X0 X1 X2 X3 X4 X5) \Leftrightarrow (\forall X6. (m1\_subset\_1 X6 X1) \Rightarrow ((X6 \in X5) \Rightarrow (k4\_tarski X6 X3 \in k21\_aofa\_000 X0 X1 X2 X4)))))))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2\_struct\_0 X0) \wedge ((v2\_unialg\_1 X0) \wedge ((v3\_unialg\_1 X0) \wedge ((v4\_unialg\_1 X0) \wedge ((v3\_aofa\_000 X0) \wedge ((v4\_aofa\_000 X0) \wedge ((v5\_aofa\_000 X0) \wedge ((v6\_aofa\_000 X0) \wedge (l1\_unialg\_1 X0)))))))))) \Rightarrow \\ & (\forall X1. (\neg v1\_xboole\_0 X1) \Rightarrow (\forall X2. (m1\_subset\_1 X2 (k1\_zfmisc\_1 X1)) \Rightarrow (\forall X3. (m1\_subset\_1 X3 (u1\_struct\_0 X0)) \Rightarrow (\forall X4. \\ & (m1\_aofa\_000 X4 X0 X1 X2) \Rightarrow ((r5\_aofa\_000 X0 X1 X2 X3 X4) \Leftrightarrow (\forall X5. \\ & (m1\_subset\_1 X5 X1) \Rightarrow (k4\_tarski X5 X3 \in k21\_aofa\_000 X0 X1 X2 X4)))))))))) \end{aligned} \quad (3)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge (v2\_unialg\_1 X0) \wedge ((v3\_unialg\_1 \\ & X0) \wedge ((v4\_unialg\_1 X0) \wedge ((v3\_aofa\_000 X0) \wedge ((v4\_aofa\_000 X0) \wedge \\ & ((v5\_aofa\_000 X0) \wedge ((v6\_aofa\_000 X0) \wedge (l1\_unialg\_1 X0))))))) \Rightarrow \\ & (\forall X1.(\neg v1\_xboole\_0 X1) \Rightarrow (\forall X2.(m1\_subset\_1 X2 (k1\_zfmisc\_1 \\ & X1) \Rightarrow (\forall X3.(m1\_aofa\_000 X3 X0 X1 X2) \Rightarrow (\forall X4.(m1\_subset\_1 \\ & X4 (u1\_struct\_0 X0) \Rightarrow ((r5\_aofa\_000 X0 X1 X2 X4 X3) \Leftrightarrow (r6\_aofa\_000 \\ & X0 X1 X2 X4 X3 X1))))))) \end{aligned}$$