

t6\_bciideal  
(TMFDnB1Q8ppZo382HMoNhBvuHnhoYtbMS2c)

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Let  $v2\_struct\_0 : \iota \Rightarrow o$  be given. Let  $v3\_bcialg\_1 : \iota \Rightarrow o$  be given. Let  $v4\_bcialg\_1 : \iota \Rightarrow o$  be given. Let  $v5\_bcialg\_1 : \iota \Rightarrow o$  be given. Let  $v7\_bcialg\_1 : \iota \Rightarrow o$  be given. Let  $l2\_bcialg\_1 : \iota \Rightarrow o$  be given. Let  $m2\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $u1\_struct\_0 : \iota \Rightarrow \iota$  be given. Let  $k5\_bcialg\_1 : \iota \Rightarrow \iota$  be given. Let  $k7\_bcialg\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k6\_bcialg\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v12\_bcialg\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m2\_bcialg\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_bcialg\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$  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. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2\_struct\_0 X0) \wedge ((v3\_bcialg\_1 X0) \wedge ((v4\_bcialg\_1 \\ &X0) \wedge ((v5\_bcialg\_1 X0) \wedge ((v7\_bcialg\_1 X0) \wedge (l2\_bcialg\_1 X0)))))) \Rightarrow \\ &((v12\_bcialg\_1 (u1\_struct\_0 X0) X0) \wedge (m2\_bcialg\_1 (u1\_struct\_0 \\ &X0) X0)) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v2\_struct\_0 X0) \wedge ((v3\_bcialg\_1 X0) \wedge ((v4\_bcialg\_1 \\ &X0) \wedge ((v5\_bcialg\_1 X0) \wedge ((v7\_bcialg\_1 X0) \wedge (l2\_bcialg\_1 X0)))))) \Rightarrow \\ &(\forall X1. (m2\_subset\_1 X1 (u1\_struct\_0 X0) (k5\_bcialg\_1 X0)) \Rightarrow \\ &(\forall X2. (m2\_subset\_1 X2 (u1\_struct\_0 X0) (k5\_bcialg\_1 X0)) \Rightarrow \\ &(\forall X3. (m2\_subset\_1 X3 (u1\_struct\_0 X0) (k7\_bcialg\_1 X0 X2)) \Rightarrow \\ &(k1\_bcialg\_1 X0 X1 X3 = k6\_bcialg\_1 X0 X1 X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (&(\neg v1\_xboole\_0 X0) \wedge ((\neg v1\_xboole\_0 X1) \wedge \\ &(m1\_subset\_1 X1 (k1\_zfmisc\_1 X0)))) \Rightarrow (\forall X2. (m2\_subset\_1 \\ &X2 X0 X1) \Leftrightarrow (m1\_subset\_1 X2 X1)) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. \forall X2. (&((\neg v2\_struct\_0 X0) \wedge ((v3\_bcialg\_1 \\ &X0) \wedge ((v4\_bcialg\_1 X0) \wedge ((v5\_bcialg\_1 X0) \wedge ((v7\_bcialg\_1 X0) \wedge \\ &(l2\_bcialg\_1 X0)))))) \wedge ((m1\_subset\_1 X1 (k5\_bcialg\_1 X0)) \wedge (m1\_subset\_1 \\ &X2 (k5\_bcialg\_1 X0)))) \Rightarrow (k6\_bcialg\_1 X0 X1 X2 = k1\_bcialg\_1 X0 X1 \\ &X2) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_bcialg\_1 X0) \wedge ((v4\_bcialg\_1 \\ & X0) \wedge ((v5\_bcialg\_1 X0) \wedge ((v7\_bcialg\_1 X0) \wedge (l2\_bcialg\_1 X0)))))) \Rightarrow \\ & (\forall X1.(m2\_bcialg\_1 X1 X0) \Rightarrow ((\neg v1\_xboole\_0 X1) \wedge (m1\_subset\_1 \\ & X1 (k1\_zfmisc\_1 (u1\_struct\_0 X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_bcialg\_1 X0) \wedge ((v4\_bcialg\_1 \\ & X0) \wedge ((v5\_bcialg\_1 X0) \wedge ((v7\_bcialg\_1 X0) \wedge (l2\_bcialg\_1 X0)))))) \Rightarrow \\ & ((\neg v1\_xboole\_0 (k5\_bcialg\_1 X0)) \wedge (m1\_subset\_1 (k5\_bcialg\_1 \\ & X0) (k1\_zfmisc\_1 (u1\_struct\_0 X0)))) \end{aligned} \quad (6)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.((\neg v2\_struct\_0 X0) \wedge ((v3\_bcialg\_1 X0) \wedge ((v4\_bcialg\_1 \\ & X0) \wedge ((v5\_bcialg\_1 X0) \wedge ((v7\_bcialg\_1 X0) \wedge (l2\_bcialg\_1 X0)))))) \Rightarrow \\ & (\forall X1.(m2\_subset\_1 X1 (u1\_struct\_0 X0) (k5\_bcialg\_1 X0)) \Rightarrow \\ & (\forall X2.(m2\_subset\_1 X2 (u1\_struct\_0 X0) (k5\_bcialg\_1 X0)) \Rightarrow \\ & (\forall X3.(m2\_subset\_1 X3 (u1\_struct\_0 X0) (k5\_bcialg\_1 X0)) \Rightarrow \\ & ((m2\_subset\_1 X1 (u1\_struct\_0 X0) (k7\_bcialg\_1 X0 X3)) \Rightarrow (k6\_bcialg\_1 \\ & X0 X2 X1 = k6\_bcialg\_1 X0 X2 X3)))))) \end{aligned}$$