

t16_bcialg_5 (TMREf-
nacRn4Yh9hDHiYWxXZMYFy9k4ebGs8)

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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 $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v8_bcialg_1 : \iota \Rightarrow o$ be given. Let $m1_bcialg_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $k1_bcialg_5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\
& (m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2.(m2_subset_1 \\
& X2 k1_numbers k5_numbers) \Rightarrow (\forall X3.(m2_subset_1 X3 k1_numbers \\
& k5_numbers) \Rightarrow (\forall X4.((\neg v2_struct_0 X4) \wedge ((v3_bcialg_1 X4) \wedge \\
& ((v4_bcialg_1 X4) \wedge ((v5_bcialg_1 X4) \wedge ((v7_bcialg_1 X4) \wedge (l2_bcialg_1 \\
& X4)))))) \Rightarrow ((m1_bcialg_5 X4 X0 X1 X2 X3) \Leftrightarrow (\forall X5.(m1_subset_1 \\
& X5 (u1_struct_0 X4)) \Rightarrow (\forall X6.(m1_subset_1 X6 (u1_struct_0 \\
& X4)) \Rightarrow (k1_bcialg_5 X4 X5 X6 X0 X1 = k1_bcialg_5 X4 X6 X5 X2 X3))))))))) \\
& \tag{1}
\end{aligned}$$

Theorem 1

$$\begin{aligned}
& \forall X0.((\neg v2_struct_0 X0) \wedge ((v3_bcialg_1 X0) \wedge ((v4_bcialg_1 \\
& X0) \wedge ((v5_bcialg_1 X0) \wedge ((v7_bcialg_1 X0) \wedge (l2_bcialg_1 X0)))))) \Rightarrow \\
& (\forall X1.(m2_subset_1 X1 k1_numbers k5_numbers) \Rightarrow (\forall X2. \\
& (m2_subset_1 X2 k1_numbers k5_numbers) \Rightarrow (\forall X3.(m2_subset_1 \\
& X3 k1_numbers k5_numbers) \Rightarrow (\forall X4.(m2_subset_1 X4 k1_numbers \\
& k5_numbers) \Rightarrow (((v8_bcialg_1 X0) \wedge (m1_bcialg_5 X0 X1 X2 X3 X4)) \Leftrightarrow \\
& ((v8_bcialg_1 X0) \wedge (m1_bcialg_5 X0 X3 X4 X1 X2)))))))))
\end{aligned}$$