

t38_bciideal (TMNc-
TovyGF2Rz3vKYZsPmjzJXvNN9eiTmXn)

October 27, 2020

Let $v2_struct_0 : \iota \Rightarrow o$ be given. Let $v3_bialg_1 : \iota \Rightarrow o$ be given. Let $v4_bialg_1 : \iota \Rightarrow o$ be given. Let $v5_bialg_1 : \iota \Rightarrow o$ be given. Let $v7_bialg_1 : \iota \Rightarrow o$ be given. Let $v8_bialg_1 : \iota \Rightarrow o$ be given. Let $l2_bialg_1 : \iota \Rightarrow o$ be given. Let $v3_bciideal : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k4_struct_0 : \iota \Rightarrow \iota$ be given. Let $m2_bialg_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v3_bialg_1 X0) \wedge ((v4_bialg_1 \\ & X0) \wedge ((v5_bialg_1 X0) \wedge ((v7_bialg_1 X0) \wedge ((v8_bialg_1 X0) \wedge \\ & (l2_bialg_1 X0)))))) \Rightarrow ((\forall X1. (m2_bialg_1 X1 X0) \Rightarrow ((v3_bciideal \\ & X1 X0) \wedge (m2_bialg_1 X1 X0))) \Leftrightarrow ((v3_bciideal (k1_tarski (k4_struct_0 \\ & X0)) X0) \wedge (m2_bialg_1 (k1_tarski (k4_struct_0 X0)) X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v3_bialg_1 X0) \wedge ((v4_bialg_1 \\ & X0) \wedge ((v5_bialg_1 X0) \wedge ((v7_bialg_1 X0) \wedge (l2_bialg_1 X0)))))) \Rightarrow \\ & (m2_bialg_1 (k1_tarski (k4_struct_0 X0)) X0) \end{aligned} \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0. ((\neg v2_struct_0 X0) \wedge ((v3_bialg_1 X0) \wedge ((v4_bialg_1 \\ & X0) \wedge ((v5_bialg_1 X0) \wedge ((v7_bialg_1 X0) \wedge ((v8_bialg_1 X0) \wedge \\ & (l2_bialg_1 X0)))))) \Rightarrow (((v3_bciideal (k1_tarski (k4_struct_0 \\ & X0)) X0) \wedge (m2_bialg_1 (k1_tarski (k4_struct_0 X0)) X0)) \Leftrightarrow (\forall X1. \\ & (m2_bialg_1 X1 X0) \Rightarrow ((v3_bciideal X1 X0) \wedge (m2_bialg_1 X1 X0)))) \end{aligned}$$