t45_bciideal (TM-RnyN3Pa8CvBAVzcU6EbV9Rf7b3gW8rmPd)

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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 $v8_bcialg_1 : \iota \Rightarrow o$ be given. Let $l2_bcialg_1 : \iota \Rightarrow o$ be given. Let $m2_bcialg_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_bciideal : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1_struct_0 : \iota \Rightarrow \iota$ be given. Let $r1_bcialg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_bcialg_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_bcialg_3 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2_struct_0\ X0) \wedge ((v3_bcialg_1\ X0) \wedge ((v4_bcialg_1\ X0) \wedge ((v5_bcialg_1\ X0) \wedge ((v7_bcialg_1\ X0) \wedge ((v8_bcialg_1\ X0) \wedge (l2_bcialg_1\ X0)))))) \Rightarrow (((\neg v2_struct_0\ X0) \wedge ((v3_bcialg_1\ X0) \wedge ((v4_bcialg_1\ X0) \wedge ((v5_bcialg_1\ X0) \wedge ((v7_bcialg_1\ X0) \wedge ((v8_bcialg_1\ X0) \wedge ((v1_bcialg_3\ X0) \wedge (l2_bcialg_1\ X0))))))) \Leftrightarrow (\forall X1.(m2_bcialg_1\ X1\ X0) \Rightarrow ((v3_bciideal\ X1\ X0) \wedge (m2_bcialg_1\ X1\ X0)))) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2_struct_0\ X0) \wedge ((v3_bcialg_1\ X0) \wedge ((v4_bcialg_1\ X0) \wedge ((v5_bcialg_1\ X0) \wedge ((v7_bcialg_1\ X0) \wedge ((v8_bcialg_1\ X0) \wedge (l2_bcialg_1\ X0)))))) \Rightarrow (((\neg v2_struct_0\ X0) \wedge ((v3_bcialg_1\ X0) \wedge ((v4_bcialg_1\ X0) \wedge ((v5_bcialg_1\ X0) \wedge ((v7_bcialg_1\ X0) \wedge ((v8_bcialg_1\ X0) \wedge ((v1_bcialg_3\ X0) \wedge (l2_bcialg_1\ X0))))))) \Leftrightarrow (\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ X0)) \Rightarrow (\forall X2.(m1_subset_1\ X2\ (u1_struct_0\ X0)) \Rightarrow (r1_bcialg_1\ X0\ (k1_bcialg_1\ X0\ X1\ (k1_bcialg_1\ X0\ X1\ X2))\ (k1_bcialg_1\ X0\ X2\ (k1_bcialg_1\ X0\ X2\ X1)))))) \tag{2}$$

Theorem 1

$$\forall X0.((\neg v2_struct_0\ X0) \wedge ((v3_bcialg_1\ X0) \wedge ((v4_bcialg_1\ X0) \wedge ((v5_bcialg_1\ X0) \wedge ((v7_bcialg_1\ X0) \wedge ((v8_bcialg_1\ X0) \wedge (l2_bcialg_1\ X0)))))) \Rightarrow ((\forall X1.(m2_bcialg_1\ X1\ X0) \Rightarrow ((v3_bciideal\ X1\ X0) \wedge (m2_bcialg_1\ X1\ X0))) \Leftrightarrow (\forall X1.(m1_subset_1\ X1\ (u1_struct_0\ X0)) \Rightarrow (\forall X2.(m1_subset_1\ X2\ (u1_struct_0\ X0)) \Rightarrow (r1_bcialg_1\ X0\ (k1_bcialg_1\ X0\ X1\ (k1_bcialg_1\ X0\ X1\ X2))\ (k1_bcialg_1\ X0\ X2\ (k1_bcialg_1\ X0\ X2\ X1))))))$$