t3_group_9 (TMWnM3mMvpoWgDTvBjy1e4U1PgD9nvksxpM)

October 27, 2020

Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v2\_group\_1 : \iota \Rightarrow o$ be given. Let $v3\_group\_1 : \iota \Rightarrow o$ be given. Let $v3\_group\_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $l1\_group\_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_group\_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k6\_algstr\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l3\_algstr\_0 : \iota \Rightarrow o$ be given. Let $m1\_group\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_group\_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v2\_group\_1\ X0) \wedge (l3\_algstr\_0\ X0))) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_group\_2\ X3\ X0) \Rightarrow (\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ X3)) \Rightarrow (\forall X5.(m1\_subset\_1\ X5\ (u1\_struct\_0\ X3)) \Rightarrow (((X4 = X1) \wedge (X5 = X2)) \Rightarrow (k6\_algstr\_0\ X3\ X4\ X5 = k6\_algstr\_0\ X0\ X1\ X2)))))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v2\_group\_1\ X1) \wedge ((v3\_group\_1\ X1) \wedge ((v3\_group\_9\ X1\ X0) \wedge (l1\_group\_9\ X1\ X0))))) \Rightarrow (\forall X2.(m1\_group\_9\ X2\ X0\ X1) \Rightarrow ((\neg v2\_struct\_0\ X2) \wedge ((v2\_group\_1\ X2) \wedge ((v3\_group\_1\ X2) \wedge ((v3\_group\_9\ X2\ X0) \wedge (l1\_group\_9\ X2\ X0))))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(l1\_group\_9\ X1\ X0) \Rightarrow (l3\_algstr\_0\ X1) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v2\_group\_1\ X1) \wedge ((v3\_group\_1\ X1) \wedge ((v3\_group\_9\ X1\ X0) \wedge (l1\_group\_9\ X1\ X0))))) \Rightarrow (\forall X2.((\neg v2\_struct\_0\ X2) \wedge ((v2\_group\_1\ X2) \wedge ((v3\_group\_1\ X2) \wedge ((v3\_group\_9\ X2\ X0) \wedge (l1\_group\_9\ X2\ X0))))) \Rightarrow ((m1\_group\_9\ X2\ X0\ X1) \Leftrightarrow ((m1\_group\_2\ X2\ X1) \wedge (\forall X3.(m1\_subset\_1\ X3\ X0) \Rightarrow (k3\_group\_9\ X0\ X2\ X3 = k2\_partfun1\ (u1\_struct\_0\ X1)\ (u1\_struct\_0\ X1)\ (k3\_group\_9\ X0\ X1\ X3)\ (u1\_struct\_0\ X2)))))) \tag{4}$$

Theorem 1

$$\forall X0.\forall X1.((\neg v2_struct_0\ X1)\wedge((v2_group_1\ X1)\wedge(
(v3_group_1\ X1)\wedge((v3_group_9\ X1\ X0)\wedge(l1_group_9\ X1\ X0)))))\Rightarrow(
\forall X2.(m1_group_9\ X2\ X0\ X1)\Rightarrow(\forall X3.(m1_subset_1\ X3\ (
u1_struct_0\ X1))\Rightarrow(\forall X4.(m1_subset_1\ X4\ (u1_struct_0\ X1))\Rightarrow
(\forall X5.(m1_subset_1\ X5\ (u1_struct_0\ X2))\Rightarrow(\forall X6.(m1_subset_1
X6\ (u1_struct_0\ X2))\Rightarrow(((X5 = X3)\wedge(X6 = X4))\Rightarrow(k6_algstr_0\ X2\ X5\ X6 =
k6_algstr_0\ X1\ X3\ X4)))))))$$