t2_group_1 (TMS6ZPoJqXDAprpHSUFyTpwEYDCgtbcYEcX)

October 27, 2020

Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $l3\_algstr\_0 : \iota \Rightarrow o$ 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 $v3\_group\_1 : \iota \Rightarrow o$ be given. Let $v2\_group\_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.\exists X1.m1\_subset\_1\ X1\ X0 \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((l3\_algstr\_0\ X0) \wedge ((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \wedge (m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)))) \Rightarrow (m1\_subset\_1\ (k6\_algstr\_0\ X0\ X1\ X2)\ (u1\_struct\_0\ X0)) \tag{2}$$

Assume the following.

$$\forall X0.(l3\_algstr\_0\ X0) \Rightarrow ((v3\_group\_1\ X0) \Leftrightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow (k6\_algstr\_0\ X0\ (k6\_algstr\_0\ X0\ X1\ X2)\ X3 = k6\_algstr\_0\ X0\ X1\ (k6\_algstr\_0\ X0\ X2\ X3)))))) \tag{3}$$

Assume the following.

$$\forall X0.(l3\_algstr\_0\ X0) \Rightarrow ((v2\_group\_1\ X0) \Leftrightarrow (\exists X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \wedge (\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0)) \Rightarrow ((k6\_algstr\_0\ X0\ X2\ X1 = X2) \wedge ((k6\_algstr\_0\ X0\ X1\ X2 = X2) \wedge (\exists X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \wedge ((k6\_algstr\_0\ X0\ X2\ X3 = X1) \wedge (k6\_algstr\_0\ X0\ X3\ X2 = X1)))))))) \tag{4}$$

Theorem 1

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l3\_algstr\_0\ X0))\Rightarrow(((\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(k6\_algstr\_0\ X0\ (k6\_algstr\_0\ X0\ X1\ X2)\ X3 = k6\_algstr\_0\ X0\ X1\ (k6\_algstr\_0\ X0\ X2\ X3)))))\wedge(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow((\exists X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\wedge(k6\_algstr\_0\ X0\ X1\ X3 = X2))\wedge(\exists X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\wedge(k6\_algstr\_0\ X0\ X3\ X1 = X2))))))\Rightarrow((v3\_group\_1\ X0)\wedge(v2\_group\_1\ X0)))$$