l44_group_9
(TMYVf69ZbLhd3obEhmW7qPsmKvhYgdfpSBe)

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 $r1\_struct\_0 : \iota{\Rightarrow}\iota{\Rightarrow}o$ be given. Let $k2\_group\_1 : \iota{\Rightarrow}\iota{\Rightarrow}\iota$ 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.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v2\_group\_1\ X0)\wedge((v3\_group\_1\ X0)\wedge(l3\_algstr\_0\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_group\_2\ X2\ X0)\Rightarrow((r1\_struct\_0\ X2\ X1)\Rightarrow(r1\_struct\_0\ X2\ (k2\_group\_1\ X0\ X1)))))) \tag{1}$$

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

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v2\_group\_1\ X1)\wedge($$
$$(v3\_group\_1\ X1)\wedge((v3\_group\_9\ X1\ X0)\wedge(l1\_group\_9\ X1\ X0)))))\Rightarrow($$
$$\forall X2.(m1\_group\_9\ X2\ X0\ X1)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ ($$
$$u1\_struct\_0\ X1))\Rightarrow((r1\_struct\_0\ X2\ X3)\Rightarrow(r1\_struct\_0\ X2\ (k2\_group\_1$$
$$X1\ X3)))))$$