t3_ltlaxio1 (TMNhkNyzU1cAAhyyhW9UY4kf64kKBHg2xpR)

October 27, 2020

Let $v1\_xboolean : \iota \Rightarrow o$ be given. Let $k6\_xboolean : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_xboolean : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_1 : \iota$ be given. Let $k8\_margrel1 : \iota$ be given. Let $k2\_xboolean : \iota$ be given. Let $k6\_xcmplx\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np\_\_0 : \iota$ be given. Let $k3\_xboolean : \iota \Rightarrow \iota$ be given. Let $k1\_xboolean : \iota$ be given. Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Rightarrow (k4\_xboolean\ X0\ X0 = X0) \tag{1}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Rightarrow (k4\_xboolean\ k8\_margrel1\ X0 = X0) \tag{2}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Rightarrow (\forall X1.(v1\_xboolean\ X1) \Rightarrow (((k6\_xboolean\ X0\ X1 = k2\_xboolean) \wedge (k6\_xboolean\ X1\ X0 = k2\_xboolean)) \Rightarrow (X0 = X1))) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Rightarrow (k6\_xboolean\ (k6\_xboolean\ k2\_xboolean\ X0)\ X0 = k2\_xboolean) \tag{4}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Rightarrow (\forall X1.(v1\_xboolean\ X1) \Rightarrow (k6\_xboolean\ X0\ (k6\_xboolean\ X1\ X0) = k2\_xboolean)) \tag{5}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Rightarrow (k6\_xboolean\ X0\ X0 = k2\_xboolean) \tag{6}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0) \Rightarrow (\forall X1.(v1\_xboolean\ X1) \Rightarrow ((k4\_xboolean\ X0\ X1 = k2\_xboolean) \Rightarrow ((X0 = k2\_xboolean) \wedge (X1 = k2\_xboolean)))) \tag{7}$$

Assume the following.

$$k6\_xcmplx\_0\ np\_\_1\ np\_\_1 = np\_\_0 \tag{8}$$

Assume the following.

$$k8\_margrel1 = k2\_xboolean \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xboolean\ X0)\wedge(v1\_xboolean\ X1))\Rightarrow(v1\_xboolean\ (k6\_xboolean\ X0\ X1)) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xboolean\ X0)\wedge(v1\_xboolean\ X1))\Rightarrow(v1\_xboolean\ (k4\_xboolean\ X0\ X1)) \tag{11}$$

Assume the following.

$$v1\_xboolean\ k2\_xboolean \tag{12}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0)\Rightarrow(v1\_xboolean\ (k3\_xboolean\ X0)) \tag{13}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0)\Rightarrow(k3\_xboolean\ X0 = k6\_xcmplx\_0\ np\_\_1\ X0) \tag{14}$$

Assume the following.

$$\forall X0.(v1\_xboolean\ X0)\Leftrightarrow((X0 = k1\_xboolean)\vee(X0 = k2\_xboolean)) \tag{15}$$

Assume the following.

$$k2\_xboolean = np\_\_1 \tag{16}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xboolean\ X0)\wedge(v1\_xboolean\ X1))\Rightarrow(k4\_xboolean\ X0\ X1 = k4\_xboolean\ X1\ X0) \tag{17}$$

Theorem 1

$$\forall X0.(v1\_xboolean\ X0)\Rightarrow(\forall X1.(v1\_xboolean\ X1)\Rightarrow(\forall X2. (v1\_xboolean\ X2)\Rightarrow(k6\_xboolean\ (k6\_xboolean\ (k4\_xboolean\ X0\ X1) X2)\ (k6\_xboolean\ X0\ (k6\_xboolean\ X1\ X2)) = np\_\_1)))$$