

t127_xboolean
(TMWzFJ35D2nE73SLCPnyXs2YfuoRZwfC6Be)

October 27, 2020

Let $v1_xboolean : \iota \Rightarrow o$ be given. Let $k7_xboolean : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboolean : \iota$ be given. Let $k10_xboolean : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboolean : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.(v1_xboolean X0) \Rightarrow (\forall X1.(v1_xboolean X1) \Rightarrow (k10_xboolean (k3_xboolean X0) (k7_xboolean X0 X1) = X1)) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xboolean X0) \Rightarrow (k7_xboolean X0 X0 = k2_xboolean) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xboolean X0) \wedge (v1_xboolean X1)) \Rightarrow (k7_xboolean X0 X1 = k7_xboolean X1 X0) \quad (3)$$

Theorem 1

$$\forall X0.(v1_xboolean X0) \Rightarrow (\forall X1.(v1_xboolean X1) \Rightarrow (\forall X2.(v1_xboolean X2) \Rightarrow (((k7_xboolean X0 X1 = k2_xboolean) \wedge (k7_xboolean X1 X2 = k2_xboolean)) \Rightarrow (k7_xboolean X0 X2 = k2_xboolean))))$$