

t130_xboolean (TMRB- wZv8UjmaDJWrYPJheELdkejKQFby3BM)

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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 $k4_xboolean : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_xboolean : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboolean : \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ 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.

$$\forall X0.\forall X1.((v1_xboolean X0) \wedge (v1_xboolean X1)) \Rightarrow (v1_xboolean (k4_xboolean X0 X1)) \quad (3)$$

Assume the following.

$$k2_xboolean = np_1 \quad (4)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xboolean X0) \Rightarrow (\forall X1.(v1_xboolean X1) \Rightarrow (\forall X2. \\ & (v1_xboolean X2) \Rightarrow (\forall X3.(v1_xboolean X3) \Rightarrow (((k7_xboolean \\ X0 X1 = k2_xboolean) \wedge (k7_xboolean X2 X3 = k2_xboolean)) \Rightarrow (k7_xboolean \\ & (k4_xboolean X0 X2) (k4_xboolean X1 X3) = k2_xboolean)))))) \end{aligned}$$