

t112_xboolean
(TMb41b3acmyJTWeT8XJyQ5YzF4Rb9Ttwfq9)

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Let $v1_xboolean : \iota \Rightarrow o$ be given. Let $k6_xboolean : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboolean : \iota$ be given. Let $k1_xboolean : \iota$ be given. Let $np_1 : \iota$ be given. Assume the following.

$$\forall X0.(v1_xboolean X0) \Rightarrow (\forall X1.(v1_xboolean X1) \Rightarrow (k6_xboolean X0 (k6_xboolean (k6_xboolean X0 X1) X1) = k2_xboolean)) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xboolean X0) \Rightarrow (k6_xboolean X0 X0 = k2_xboolean) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xboolean X0) \wedge (v1_xboolean X1)) \Rightarrow (v1_xboolean (k6_xboolean X0 X1)) \quad (3)$$

Assume the following.

$$v1_xboolean k2_xboolean \quad (4)$$

Assume the following.

$$\forall X0.(v1_xboolean X0) \Leftrightarrow ((X0 = k1_xboolean) \vee (X0 = k2_xboolean)) \quad (5)$$

Assume the following.

$$k2_xboolean = np_1 \quad (6)$$

Theorem 1

$$\forall X0.(v1_xboolean X0) \Rightarrow (k6_xboolean (k6_xboolean k2_xboolean X0) X0 = k2_xboolean)$$