

t129_xboolean
(TMa5pyeeZYcEXm5rTzSiteUuv9cQh7j27oE)

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Let $v1_xboolean : \iota \Rightarrow o$ be given. Let $k3_xboolean : \iota \Rightarrow \iota$ 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 $np_1 : \iota$ be given. Assume the following.

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

Assume the following.

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

Assume the following.

$$\forall X0.(v1_xboolean X0) \Rightarrow (k3_xboolean (k3_xboolean X0) = X0) \quad (3)$$

Assume the following.

$$v1_xboolean k2_xboolean \quad (4)$$

Assume the following.

$$\forall X0.(v1_xboolean X0) \Rightarrow (v1_xboolean (k3_xboolean X0)) \quad (5)$$

Assume the following.

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

Assume the following.

$$\forall X0.(v1_xboolean X0) \Rightarrow (\forall X1.(v1_xboolean X1) \Rightarrow (k10_xboolean X0 X1 = k3_xboolean (k7_xboolean X0 X1))) \quad (7)$$

Theorem 1

$$\forall X0.(v1_xboolean X0) \Rightarrow (k3_xboolean (k7_xboolean X0 (k3_xboolean X0)) = k2_xboolean)$$