

t60_xboolean
(TMQEt5LadtLpgAAzRwgX8KagmeVGNK7rTKP)

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Let $v1_xboolean : \iota \Rightarrow o$ be given. Let $k8_xboolean : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_xboolean : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xboolean : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboolean : \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xboolean X0) \Rightarrow (\forall X1.(v1_xboolean X1) \Rightarrow (\forall X2. \\ & (v1_xboolean X2) \Rightarrow (k8_xboolean X0 (k8_xboolean X1 X2) = k4_xboolean \\ & (k6_xboolean X0 X1) (k6_xboolean X0 X2)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v1_xboolean X0) \Rightarrow (k8_xboolean X0 X0 = k3_xboolean X0) \quad (2)$$

Assume the following.

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

Assume the following.

$$\forall X0.\forall X1.((v1_xboolean X0) \wedge (v1_xboolean X1)) \Rightarrow (v1_xboolean (k6_xboolean X0 X1)) \quad (4)$$

Assume the following.

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

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xboolean X0) \Rightarrow (\forall X1.(v1_xboolean X1) \Rightarrow (\forall X2. \\ & (v1_xboolean X2) \Rightarrow (k8_xboolean X0 (k6_xboolean X1 X2) = k4_xboolean \\ & (k6_xboolean X0 X1) (k6_xboolean X0 (k3_xboolean X2)))) \end{aligned}$$