

t151\_xxreal\_1

(TMMF3fD8DtT9bc9XzA4HDcMBojYY2ELgPX5)

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Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xxreal\_0 X2) \Rightarrow (\forall X3.(v1\_xxreal\_0 X3) \Rightarrow (((r1\_xxreal\_0 \\ & X0 X1) \wedge (r1\_xxreal\_0 X2 X3)) \Rightarrow (k3\_xboole\_0 (k2\_xxreal\_1 X0 X2) ( \\ & k2\_xxreal\_1 X1 X3) = k2\_xxreal\_1 X1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.k3\_xboole\_0 X0 X1 = k3\_xboole\_0 X1 X0 \quad (2)$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (\forall X2. \\ & (v1\_xxreal\_0 X2) \Rightarrow (\forall X3.(v1\_xxreal\_0 X3) \Rightarrow (((r1\_xxreal\_0 \\ & X1 X0) \wedge (r1\_xxreal\_0 X3 X2)) \Rightarrow (k3\_xboole\_0 (k2\_xxreal\_1 X0 X2) ( \\ & k2\_xxreal\_1 X1 X3) = k2\_xxreal\_1 X0 X3)))))) \end{aligned}$$