

t173_xxreal_1
(TMcpbgo4LZp4jjsZcQ2GdknhvDtX8dhesv6)

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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 $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarSKI : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \forall X2. k2_xboole_0 (k2_xboole_0 X0 X1) X2 = k2_xboole_0 X0 (k2_xboole_0 X1 X2) \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (v1_xxreal_0 X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ (v1_xxreal_0 X2) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow ((r1_xxreal_0 X2 X1) \vee (\\ k2_xboole_0 (k3_xxreal_1 X0 X1) (k4_xxreal_1 X1 X2) = k4_xxreal_1 \\ X0 X2)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0. (v1_xxreal_0 X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow ((\\ \neg r1_xxreal_0 X1 X0) \Rightarrow (k3_xxreal_1 X0 X1 = k2_xboole_0 (k4_xxreal_1 \\ X0 X1) (k1_tarSKI X1)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. (v1_xxreal_0 X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow ((\\ \neg r1_xxreal_0 X1 X0) \Rightarrow (k2_xxreal_1 X0 X1 = k2_xboole_0 (k1_tarSKI \\ X0) (k4_xxreal_1 X0 X1)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (\\ (r1_xxreal_0 X0 X1) \vee (r1_xxreal_0 X1 X0)) \quad (5)$$

Theorem 1

$$\begin{aligned} \forall X0. (v1_xxreal_0 X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ (v1_xxreal_0 X2) \Rightarrow (\neg (\neg r1_xxreal_0 X1 X0) \wedge ((\neg r1_xxreal_0 X2 X1) \wedge \\ (k2_xboole_0 (k4_xxreal_1 X0 X1) (k2_xxreal_1 X1 X2) \neq k4_xxreal_1 \\ X0 X2)))))) \end{aligned}$$