

t414_xxreal_1 (TMGs-
gCkMWf8wV12ogm2yeTnSPPz1oU2Z1rW)

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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 $k3_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow (\forall X3.(v1_xxreal_0 X3) \Rightarrow (((r1_xxreal_0 \\ & X2 X3) \wedge (r1_xxreal_0 X1 X2)) \Rightarrow ((r1_xxreal_0 X1 X0) \vee (k2_xboole_0 \\ & (k3_xxreal_1 X0 X2) (k1_xxreal_1 X1 X3) = k3_xxreal_1 X0 X3)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (r1_xxreal_0 X0 X0) \quad (2)$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow ((r1_xxreal_0 X1 X2) \Rightarrow ((r1_xxreal_0 X1 X0) \vee (\\ & k2_xboole_0 (k3_xxreal_1 X0 X1) (k1_xxreal_1 X1 X2) = k3_xxreal_1 \\ & X0 X2)))))) \end{aligned}$$