

t206_xxreal_1

(TMMw1PbKU69E8DUqyS7Bgi5GNzejwqAT9Cv)

October 27, 2020

Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xxreal_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (v1_xxreal_0 X1) \Rightarrow (\forall X2. (v1_xxreal_0 \\ & X2) \Rightarrow ((X0 \in k4_xxreal_1 X1 X2) \Rightarrow ((X0 \in k2_xxreal_1 X1 X2) \wedge (X0 \neq X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (v1_xxreal_0 X1) \Rightarrow (\forall X2. (v1_xxreal_0 \\ & X2) \Rightarrow ((X0 \in k2_xxreal_1 X1 X2) \Rightarrow ((X0 \in k1_xxreal_1 X1 X2) \wedge (X0 \neq X2)))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (X2 = k2_xboole_0 X0 X1) \Leftrightarrow (\forall X3. \\ & (X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \end{aligned} \quad (3)$$

Theorem 1

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