

t3_xxreal_3
(TMFR8M4B82GdVgBPUq6c1b6pYKr1Ggsrkaf)

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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 $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k1_xxreal_0 : \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\forall X2. \\ & (v1_xxreal_0 X2) \Rightarrow (\neg(\neg r1_xxreal_0 X1 X0) \wedge ((\neg r1_xxreal_0 X2 X1) \wedge \\ & (\neg X1 \in k1_numbers)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\neg \\ & (\neg r1_xxreal_0 X1 X0) \wedge (\forall X2.(v1_xxreal_0 X2) \Rightarrow (\neg(\neg r1_xxreal_0 \\ & X2 X0) \wedge (\neg r1_xxreal_0 X1 X2)))))) \end{aligned} \tag{2}$$

Assume the following.

$$k1_xxreal_0 = k1_numbers \tag{3}$$

Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Leftrightarrow (X0 \in k1_numbers) \tag{4}$$

Theorem 1

$$\begin{aligned} & \forall X0.(v1_xxreal_0 X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow (\neg \\ & (\neg r1_xxreal_0 X1 X0) \wedge (\forall X2.(v1_xreal_0 X2) \Rightarrow (\neg(\neg r1_xxreal_0 \\ & X2 X0) \wedge (\neg r1_xxreal_0 X1 X2)))))) \end{aligned}$$