

t82_xxreal_2 (TMYxRNzf- CoysA8DvRFUdZGbv9LW2j9CohxQ)

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Let $v2_membered : \iota \Rightarrow o$ be given. Let $v6_xxreal_2 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_xxreal_2 : \iota \Rightarrow \iota$ be given. Let $m2_xxreal_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0.(v2_membered X0) \Rightarrow ((v6_xxreal_2 X0) \Rightarrow (\forall X1.(\\ v1_xxreal_0 X1) \Rightarrow (\forall X2.(v1_xxreal_0 X2) \Rightarrow (\forall X3.(v1_xxreal_0 \\ X3) \Rightarrow (((X1 \in X0) \wedge ((X2 \in X0) \wedge ((r1_xxreal_0 X1 X3) \wedge (r1_xxreal_0 X3 \\ X2)))) \Rightarrow (X3 \in X0)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0.(v2_membered X0) \Rightarrow (v1_xxreal_0 (k2_xxreal_2 X0)) \quad (2)$$

Assume the following.

$$\begin{aligned} \forall X0.(v2_membered X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((\\ X1 = k2_xxreal_2 X0) \Leftrightarrow ((m2_xxreal_2 X1 X0) \wedge (\forall X2.(m2_xxreal_2 \\ X2 X0) \Rightarrow (r1_xxreal_0 X2 X1)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0.(v2_membered X0) \Rightarrow (\forall X1.(v1_xxreal_0 X1) \Rightarrow ((\\ m2_xxreal_2 X1 X0) \Leftrightarrow (\forall X2.(v1_xxreal_0 X2) \Rightarrow ((X2 \in X0) \Rightarrow (r1_xxreal_0 \\ X1 X2)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (\\ (r1_xxreal_0 X0 X1) \vee (r1_xxreal_0 X1 X0)) \end{aligned} \quad (5)$$

Theorem 1

$$\begin{aligned} \forall X0.(v2_membered X0) \Rightarrow ((v6_xxreal_2 X0) \Rightarrow (\forall X1.(\\ v1_xxreal_0 X1) \Rightarrow (\forall X2.(v1_xxreal_0 X2) \Rightarrow (((X1 \in X0) \wedge (r1_xxreal_0 \\ X2 X1)) \Rightarrow ((r1_xxreal_0 X2 (k2_xxreal_2 X0)) \vee (X2 \in X0)))))) \end{aligned}$$