

t96_xxreal_2

(TMGz3MjG7K7wZDgueWXbq6hnpcQ6p5KUYc8)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k7_numbers : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xxreal_2 : \iota \Rightarrow \iota$ be given. Let $k2_xxreal_2 : \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v1_xboole_0 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k7_numbers))) \Rightarrow \\ &(\forall X1. (m1_subset_1 X1 k7_numbers) \Rightarrow (\neg(\neg r1_xxreal_0 X1 (\\ &k2_xxreal_2 X0)) \wedge (\forall X2. (m1_subset_1 X2 k7_numbers) \Rightarrow (\neg \\ &(X2 \in X0) \wedge (\neg r1_xxreal_0 X1 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (&(\neg v1_xboole_0 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k7_numbers))) \Rightarrow \\ &(\forall X1. (v1_xxreal_0 X1) \Rightarrow (\neg(\neg r1_xxreal_0 (k1_xxreal_2 X0) \\ &X1) \wedge (\forall X2. (m1_subset_1 X2 k7_numbers) \Rightarrow (\neg(X2 \in X0) \wedge (\neg r1_xxreal_0 \\ &X2 X1)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\forall X0. (v2_membered X0) \Rightarrow (v1_xxreal_0 (k2_xxreal_2 X0)) \quad (3)$$

Assume the following.

$$\forall X0. (m1_subset_1 X0 (k1_zfmisc_1 k7_numbers)) \Rightarrow (v2_membered X0) \quad (4)$$

Theorem 1

$$\begin{aligned} \forall X0. (&(\neg v1_xboole_0 X0) \wedge (m1_subset_1 X0 (k1_zfmisc_1 k7_numbers))) \Rightarrow \\ &(\forall X1. ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ &k7_numbers))) \Rightarrow ((\forall X2. (m1_subset_1 X2 k7_numbers) \Rightarrow (\forall X3. \\ &(m1_subset_1 X3 k7_numbers) \Rightarrow (((X2 \in X0) \wedge (X3 \in X1)) \Rightarrow (r1_xxreal_0 \\ &X2 X3)))))) \Rightarrow (r1_xxreal_0 (k1_xxreal_2 X0) (k2_xxreal_2 X1)))) \end{aligned}$$