

t40_rpr_1
(TMJ43yjhry9Qdb96hohoKkmZA6Tu7ayNbaD)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_rpr_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k2_rpr_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $k3_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k10_real_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((\neg v1_xboole_0 X0) \wedge (v1_finset_1 X0)) \Rightarrow (\forall X1. \\ & (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ & (k1_zfmisc_1 X0)) \Rightarrow ((\neg r1_xxreal_0 (k1_rpr_1 X0 X2) k6_numbers) \Rightarrow \\ & (k2_rpr_1 X0 X2 X1 = k9_real_1 np_1 (k10_real_1 (k1_rpr_1 X0 (k7_subset_1 \\ & X0 X2 X1)) (k1_rpr_1 X0 X2)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (\forall X2. \\ & (m1_subset_1 X2 (k1_zfmisc_1 X0)) \Rightarrow (k7_subset_1 X0 X1 X2 = k9_subset_1 \\ & X0 X1 (k3_subset_1 X0 X2))) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (k3_subset_1 X0 (k3_subset_1 X0 X1) = X1) \tag{3}$$

Assume the following.

$$\forall X0. \forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (m1_subset_1 (k3_subset_1 X0 X1) (k1_zfmisc_1 X0)) \tag{4}$$

Assume the following.

$$\forall X0. \forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (k3_subset_1 X0 X1 = k4_xboole_0 X0 X1) \tag{5}$$

Assume the following.

$$\begin{aligned} \forall X0.(v1_finset_1 X0) \Rightarrow (\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 \\ X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 X0)) \Rightarrow (k2_rpr_1 \\ X0 X1 X2 = k10_real_1 (k1_rpr_1 X0 (k9_subset_1 X0 X2 X1)) (k1_rpr_1 \\ X0 X1)))) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ X0)) \Rightarrow (k9_subset_1 X0 X1 X2 = k9_subset_1 X0 X2 X1) \quad (7)$$

Theorem 1

$$\begin{aligned} \forall X0.((\neg v1_xboole_0 X0) \wedge (v1_finset_1 X0)) \Rightarrow (\forall X1. \\ (m1_subset_1 X1 (k1_zfmisc_1 X0)) \Rightarrow (\forall X2.(m1_subset_1 X2 \\ (k1_zfmisc_1 X0)) \Rightarrow ((\neg r1_xxreal_0 (k1_rpr_1 X0 X2) k6_numbers) \Rightarrow \\ ((k2_rpr_1 X0 X2 X1 = k9_real_1 np_1 (k2_rpr_1 X0 X2 (k3_subset_1 \\ X0 X1))) \wedge (k2_rpr_1 X0 X2 (k3_subset_1 X0 X1) = k9_real_1 np_1 (k2_rpr_1 \\ X0 X2 X1)))))) \end{aligned}$$