

t72_rinfsup1 (TMYzAHeCTnwEBdurufEnSmKY- opVS4UeCLEM)

October 27, 2020

Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_numbers : \iota$ be given. Let $k5_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v8_valued_0 : \iota \Rightarrow o$ be given. Let $v2_seq_2 : \iota \Rightarrow o$ be given. Let $k1_seq_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_rinfsup1 : \iota \Rightarrow \iota$ be given. Let $k2_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $np_1 : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_xxreal_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_valued_0 : \iota \Rightarrow o$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers k1_numbers) \wedge (m1_subset_1 \\ & X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow (((\\ & v8_valued_0 X1) \wedge (v2_seq_2 X1)) \Rightarrow (r1_xxreal_0 (k1_seq_1 (k3_rinfsup1 \\ & X1) (k2_nat_1 X0 np_1)) (k1_seq_1 X1 X0))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0.(m2_subset_1 X0 k1_numbers k5_numbers) \Rightarrow (\forall X1. \\ & ((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers k1_numbers) \wedge (m1_subset_1 \\ & X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow ((v2_seq_2 \\ & X1) \Rightarrow (k1_seq_1 (k3_rinfsup1 X1) X0 = k3_xxreal_0 (k1_seq_1 (k3_rinfsup1 \\ & X1) (k2_nat_1 X0 np_1)) (k1_seq_1 X1 X0))) \end{aligned} \tag{2}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{3}$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat_1 X0) \wedge ((v1_funct_1 X0) \wedge (v3_valued_0 X0))) \Rightarrow (k1_seq_1 X0 X1 = k1_funct_1 X0 X1) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v2_valued_0 X0)))\Rightarrow(v1_xxreal_0 (k1_funct_1 X0 X1)) \quad (5)$$

Assume the following.

$$v3_membered k1_numbers \quad (6)$$

Assume the following.

$$\begin{aligned} &\forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k1_numbers)\wedge \\ &(m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers))))))\Rightarrow \\ &((v1_funct_1 (k3_rinf sup1 X0))\wedge((v1_funct_2 (k3_rinf sup1 X0) \\ &k5_numbers k1_numbers)\wedge(m1_subset_1 (k3_rinf sup1 X0) (k1_zfmisc_1 \\ &(k2_zfmisc_1 k5_numbers k1_numbers)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} &\forall X0.(v1_xxreal_0 X0)\Rightarrow(\forall X1.(v1_xxreal_0 X1)\Rightarrow((\\ &(r1_xxreal_0 X0 X1)\Rightarrow(k3_xxreal_0 X0 X1 = X0))\wedge((\neg r1_xxreal_0 X0 \\ &X1)\Rightarrow(k3_xxreal_0 X0 X1 = X1)))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(v3_membered X0)\Rightarrow(v2_membered X0) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(v3_membered X1)\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v3_valued_0 X2)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(v2_membered X1)\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v2_valued_0 X2)) \quad (12)$$

Theorem 1

$$\begin{aligned} &\forall X0.(m2_subset_1 X0 k1_numbers k5_numbers)\Rightarrow(\forall X1. \\ &((v1_funct_1 X1)\wedge((v1_funct_2 X1 k5_numbers k1_numbers)\wedge(m1_subset_1 \\ &X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers))))))\Rightarrow(((\\ &v8_valued_0 X1)\wedge(v2_seq_2 X1))\Rightarrow(k1_seq_1 (k3_rinf sup1 X1) X0 = \\ &k1_seq_1 (k3_rinf sup1 X1) (k2_nat_1 X0 np_1))) \end{aligned}$$