

t5_mesfun10
(TMYmPS6izgvDx4CokjSvTLhFn5cgc9b5DTa)

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Let $v1_funct.1 : \iota \Rightarrow o$ be given. Let $v1_funct.2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k5_numbers : \iota$ be given. Let $k7_numbers : \iota$ 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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r1_xxreal.0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_supinf.2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_rinf sup2 : \iota \Rightarrow \iota$ be given. Let $k8_nat.1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k8_supinf.2 : \iota \Rightarrow \iota$ be given. Let $k17_supinf.2 : \iota \Rightarrow \iota$ be given. Let $k1_funct.1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat.1 : \iota \Rightarrow o$ be given. Let $v2_valued.0 : \iota \Rightarrow o$ be given. Let $v2_membered : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct.1 X0) \wedge ((v1_funct.2 X0 k5_numbers k7_numbers) \wedge \\ & (m1_subset.1 X0 (k1_zfmisc.1 (k2_zfmisc.1 k5_numbers k7_numbers)))))) \Rightarrow \\ & (\forall X1.(m1_subset.1 X1 k7_numbers) \Rightarrow ((\forall X2.(v7_ordinal1 \\ & X2) \Rightarrow (r1_xxreal.0 (k8_nat.1 k7_numbers X0 X2) X1)) \Rightarrow (r1_xxreal.0 \\ & (k8_supinf.2 (k17_supinf.2 X0) X1)))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (((v1_funct.1 X1) \wedge ((v1_funct.2 \\ & X1 k5_numbers X0) \wedge (m1_subset.1 X1 (k1_zfmisc.1 (k2_zfmisc.1 k5_numbers \\ & X0)))))) \wedge (v7_ordinal1 X2)) \Rightarrow (k8_nat.1 X0 X1 X2 = k1_funct.1 X1 X2) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. ((v1_relat.1 X0) \wedge ((v1_funct.1 X0) \wedge (v2_valued.0 X0))) \Rightarrow (k12_supinf.2 X0 X1 = k1_funct.1 X0 X1) \tag{3}$$

Assume the following.

$$v2_membered k7_numbers \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1_funct.1 X0) \wedge ((v1_funct.2 X0 k5_numbers k7_numbers) \wedge \\ & (m1_subset.1 X0 (k1_zfmisc.1 (k2_zfmisc.1 k5_numbers k7_numbers)))))) \Rightarrow \\ & (k1_rinf sup2 X0 = k8_supinf.2 (k17_supinf.2 X0)) \end{aligned} \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v1_relat_1 X2) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(v2_membered X1)\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v2_valued_0 X2)) \quad (7)$$

Theorem 1

$$\begin{aligned} & \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k7_numbers)\wedge \\ & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k7_numbers))))\Rightarrow \\ & (\forall X1.(m1_subset_1 X1 k7_numbers)\Rightarrow((\forall X2.(v7_ordinal1 \\ & X2)\Rightarrow(r1_xxreal_0 (k12_supinf_2 X0 X2) X1))\Rightarrow(r1_xxreal_0 (k1_rinfsup2 \\ & X0) X1))) \end{aligned}$$